THE OIL AND GAS JOURNAL

Volume 34
Number 2

May 30, 1935

SUBSCRIPTION RATES: Domestic, 1 year, $6; 6 months, $3. Canadian and foreign, 1 year, $7; 6 months, $3.50. All subscriptions payable in advance. When extra copies of special issues are available they are reserved for subscribers' needs and may be bought by subscribers at 50 cents each

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OIL MAN'S CALENDAR

June

5-6—Pittsburgh, Pa., Eastern district, A.P.I. Division of Production.

6—Los Angeles, Calif., California Natural Gasoline Association.

6-7—Oil City, Pa., Fire and Safety Marshals Meeting, National Petroleum Association.

7-8—Tulsa, Mid-Continent Group, North American Gasoline Tax Conference, Alvin Hotel.

10-11—Fargo, N. Dak., Northwestern Petroleum Association, North Dakota Division.

16-21—White Sulphur Springs, W. Va., Society of Automotive Engineers, summer meeting, Greenbrier Inn.

19-21—Cincinnati, Ohio, American Society of Chemical Engineers.

20-21—State College, Pa., Pennsylvania Grade Crude Oil Association, annual meeting.

24-28—Detroit, Mich., American Society for Testing Materials, annual meeting, Book Cadillac Hotel.

August

(?)—American Petroleum Equipment Suppliers' Association, place to be named later.

19-24—San Francisco, Calif., American Chemical Society.

September

4-5—Louisville, Ky., Kentucky Petroleum Marketers Association.

18-20—Hot Springs, Ark., North American Gasoline Tax Conference.

18-20—Atlantic City, N. J., National Petroleum Association, annual meeting, Hotel Traymore.

October

11-12—Houston, Tex., mid-year meeting of Petroleum Division of A.I.M.E.

14-18—Louisville, Ky., National Safety Council, twenty-fourth annual safety congress.

14-18—Atlantic City, N. J., American Gas Association, Manufacturers Division.

14-19—Oklahoma City, Okla., National Tax Association, Oklahoma Biltmore Hotel.

November

4-5—Dallas, Tex., I.P.A.A. annual convention.

11-14—Los Angeles, Calif., American Petroleum Institute, sixteenth annual meeting, Biltmore Hotel.

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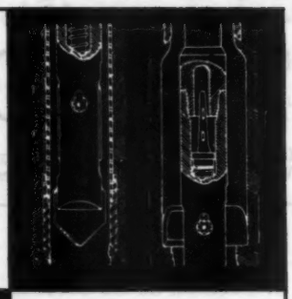
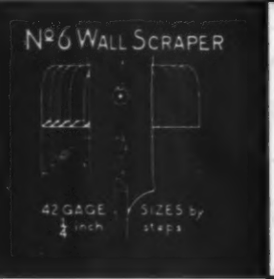
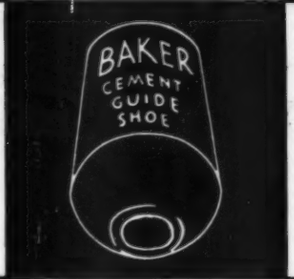
CAREFUL preparation of the hole before casing is run and the use of the most suitable cementing equipment give you the greatest assurance of obtaining a successful cement job. The diagrams show (a) a hole enlarged by underreaming with a Baker Rotary Wall Scraper to provide ample clearance for cementing a liner, and (b) a hole "bottlenecked" to assure distribution of cement completely around the shoe and shoe joint.

THE blades of the Baker Rotary Wall Scraper are folded inside the body (a) while running in and coming out of the hole. Positively expanded when pumps and rotation start they quickly cut their way out to the fully expanded position shown at (b). All the hole, or any desired portion of it can be reamed. Great depth does not affect the safe, easy operation of the Baker Rotary Hydraulic Expansion Wall Scrapers.



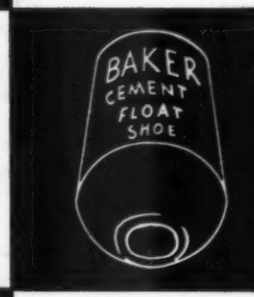


EACH of the seven sizes of Baker Rotary Wall Scrapers can be fitted with blades selected from a wide range of sizes, affording an amazing range of expansion. For instance, the No. 6 Wall Scraper will ream from 9¼ inches to 19 inches in diameter depending on the blades used, yet the largest O.D. of the body is only 7¾", same as a 6⅝" Standard A.P.I tool joint.

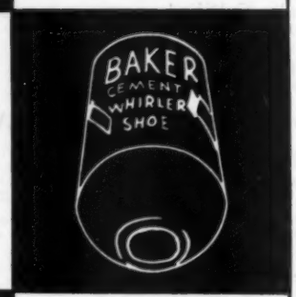


ONLY special Baker Formula Concrete is used in constructing the internal plug in all Baker Cement Equipment. Three times as strong as ordinary concrete, it assures strength beyond the collapsing strength of your casing. The Baker Cement Guide Casing Shoe will safely guide your casing. The concrete plug can be easily drilled up and circulated out of the hole, leaving it free from metal or objectionable matter.

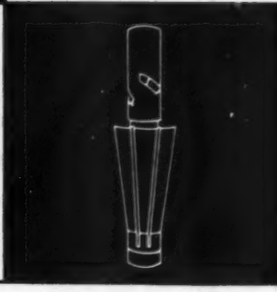
THE double-seal valve securely anchored within the concrete plug of all Baker "Floating" Cement Equipment, whether Shoes or Collars, is constructed only of Bakelite and a special rubber sealing ring. The buoyant Bakelite ball valve provides a leakproof seal both while the casing is being "floated" into the hole and after cementing. The Baker Cement Float Shoe safely guides and floats your casing.



THE Baker Cement Whirler Shoe not only guides and floats your casing but assures a more complete distribution of cement. Side holes leading out of the valve chamber from below the valve are baffled to whirl the cement in an upward spiral about the pipe. Even though the bottom circulation hole is closed the side holes provide ample circulation and complete distribution of the cement



THE Baker Cement Float Collar not only floats your casing safely, it also serves as a stop for the plugs used in cementing and assures a better consistency of cement around the casing shoe. In deep wells, where the investment is great and every precaution should be taken, it is considered good practice and good insurance to use a Baker Cement Float Collar in combination with a Baker Cement Float Shoe.



FOR cementing combination strings or cementing at any depth, the Baker Cement Whirler Collar provides maximum safety and assurance of success. The side holes, similar to those of the Baker Cement Whirler Shoe, permit free circulation of the cement and assure its even distribution by whirling it upward about the pipe. The canvas basket serves as an outside packer to prevent the cement or cavings from coming in contact with the oil sand.

Strength-Valve Efficiency-Drillability

With the cost of drilling the well at stake, experienced operators and engineers readily appreciate the necessity for taking every precaution to assure the success of cementing operations. Offering the ultimate degree of safety, only Baker Cement Equipment possesses the three essential qualities of *Strength, Valve Efficiency* and *Drillability* in *balanced* combination.

BAKER CEMENT EQUIPMENT

for guiding—floating—cementing casing

BAKER OIL TOOLS, INC.

Production Situation Not Affected by Supreme Court Decision Invalidating Petroleum Code

By ANDREW M. ROWLEY

THE greatest and most far reaching effect of the decision of the Supreme Court in the Schechter Poultry Corp. case is to return regulation of the oil business to the state governments and to eliminate Federal bureaucratic control which was spreading rapidly throughout every department of the industry.

The decision does not in any way directly affect crude oil production, proration, or allowables. It does not affect the Connally law relating to interstate shipments of crude oil or its products produced or manufactured in excess of state laws and regulations. It has no effect whatever on conditions in East Texas. It does do away immediately with Federal gasoline allocations and nullifies all the regulations issued by the Petroleum Administrative Board relating to hours of labor, minimum wages, pool development plans, retroactive wage schedules, and certain marketing practices.

The decision eliminates the psychology engendered by the code and reiterates that the petroleum industry is in charge of the operation of its own business. What effect this psychology has had on operations remains to be seen. If refiners with plenty of crude oil increase runs to stills and are not guided by what they should know is the maximum market for gasoline, a surplus of gasoline is bound to accumulate and a weakening of the gasoline price structure with a resultant effect on the crude oil market would be inevitable.

Crude oil production allowables fixed by the Petroleum Administrative Board have not been regarded as mandatory figures by either the various state authorities or the industry. These allowables have been accepted by the different state regulatory bodies as "good evidence" of consumer demand and as such have been considered carefully in setting state allowables by the state regulatory bodies. While a number of the states, such as Oklahoma and Kansas, having state laws covering this subject, have followed the Federal crude oil allocations exactly, it never was mandatory that they should. In most cases the crude oil allowables set by the Railroad Commission of Texas differed slightly from the figures set by the Petroleum Administrative Board. In a number of instances the Texas Railroad Commission set a figure below that of the Federal agency.

There is no reason why these figures on national and state consumer requirements for crude oil should not be issued as heretofore. The figures issued during the past two years were checked very closely by the statistical department of the Planning and Coordination Committee, headed by Fred Van Covern, statistician of the American Petroleum Institute who was loaned to the P. and C. Committee when the code for the oil industry became effective. Mr. Van

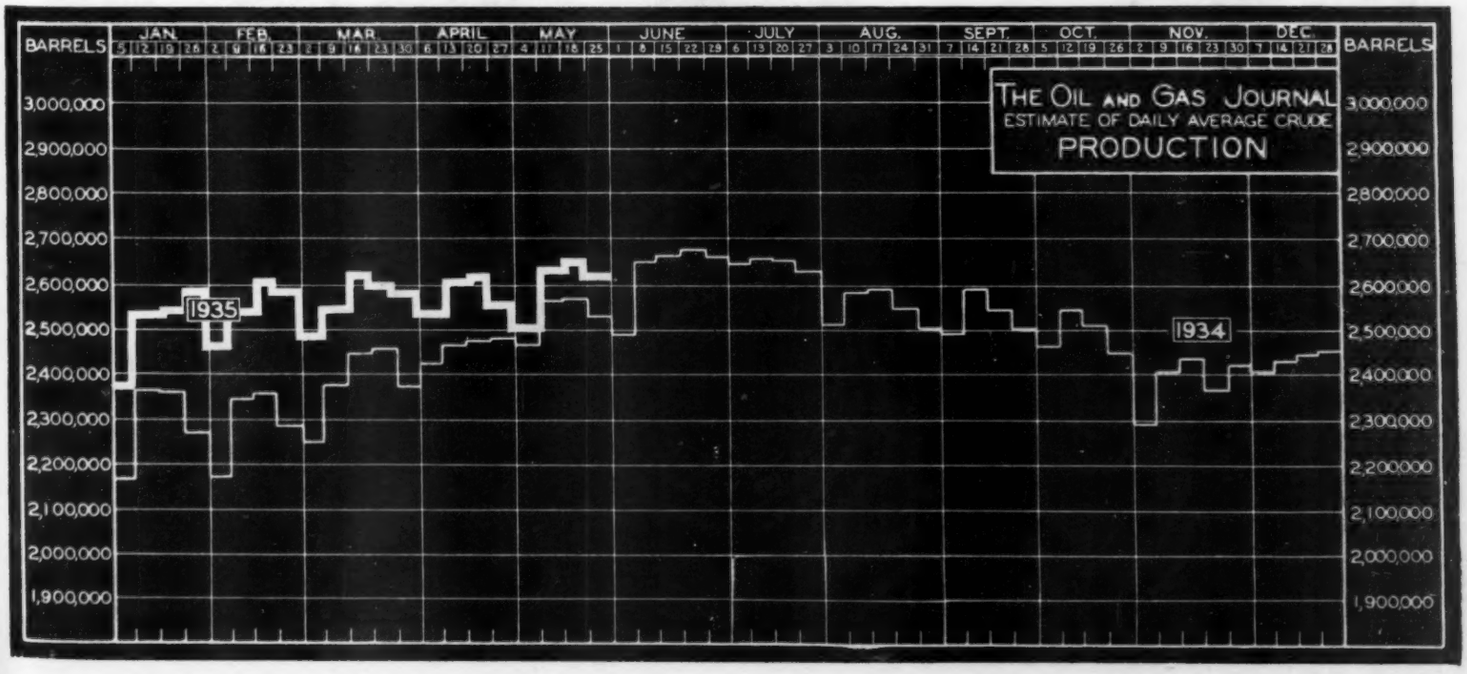
(Continued on Page 32)

Crude Oil Production in the United States

Estimated daily average production for the week ending May 25, a comparison with previous week and the Federal allowables follow:

		Federal allowable	
Oklahoma—	May 25	May	May 18
Oklahoma City	160,575	.....	177,750
Seminole-St. Louis	101,400	.....	102,775
Remainder of State	261,675	.....	262,975
Total Oklahoma	523,650	500,200	543,500
East Texas—			
Lathrop	163,367	.....	158,749
Kilgore	153,938	.....	151,620
Joiner	155,620	.....	147,835
Total East Texas	472,925	.....	458,204
West Texas	143,742	.....	143,605
North Central Texas	91,507	.....	91,363
Texas Panhandle	60,525	.....	65,918
East Central Texas	48,634	.....	48,409
Gulf Coast Texas	180,490	.....	179,556
Southwest Texas	58,330	.....	58,413
Total State of Texas	1,056,153	1,032,900	1,045,468
Kansas	152,900	148,400	152,475
North Louisiana	23,160	.....	22,900
Gulf Coast—Louisiana	111,628	.....	109,705
Total Louisiana	134,788	112,200	132,695
Arkansas	31,140	30,300	31,200
Eastern Fields (except Michigan)	105,000	106,200	107,000
Michigan	39,075	34,300	39,125
Rocky Mountain area	98,270	102,500	98,140
California—			
Santa Fe Springs	36,000	.....	37,250
Long Beach	64,000	.....	68,500
Mountain View	7,200	.....	9,400
Elwood	12,000	.....	12,000
Kettleman Hills	53,100	.....	61,750
Remainder of State	311,700	.....	323,100
Total California	484,000	494,200	511,000
Total United States	2,624,976	2,561,200	2,660,603

Decrease 35,627 Bbls. Daily.



The Bulletin Board

The Supreme Court Decision does not affect crude oil production, allowables or proration as state laws, upheld by the highest courts, cover these subjects and state regulatory bodies will continue to function just as before. The Connally law relating to interstate shipments of crude oil and its products also is not affected in any way by the decision. That law is still in effect and operative.

•

The Petroleum Code with its many provisions relating to labor, wages and practices ceased to exist on Monday when the Supreme Court invalidated a large part of the National Industry Recovery Act.

•

Proposed Federal Legislation, such as the Thomas Bill and the Wagner Labor Bill, are more than ever placed in the doubtful class by the Supreme Court decision in the Schechter Poultry Corp. case. Opinion in Washington is that the decision sounded a death knell to such legislation.

•

Refinery Allocations are nullified by the Supreme Court decision but refiners believe the benefits of such allocations can be continued through voluntary co-operation and a strict adherence to sound business principles relating to holding runs to stills to consumer demand.

•

The P. and C. Committee has ceased functioning actively as a result of the Supreme Court decision but is maintaining its personnel and district organizations so as to be ready to resume work immediately should new legislation be enacted which would make advisable its continuance.

•

Testing of Motor Fuels and lubricants under all practical service conditions was observed by the Standards and Testing Division of the National Petroleum Association which spent two days at the Detroit laboratories of the General Motors Research Corporation.

•

Gasoline Prices in 50 representative cities have advanced an average of 1 cent per gallon since January 1. This follows a corresponding increase in refinery prices for gasoline at many manufacturing centers.

•

East Texas shipments of refined products continue to decline, only 854 cars leaving the field last week, a drop of 99 cars as compared to the previous week. Overproduction of crude is estimated at between 22,000 and 23,000 barrels daily, an increase of about 5,000 barrels over the previous week.

Production Practices in the Oklahoma City Field include the use of intermitters which have a definite place in producing wells because of prevailing low formation pressures. The intermitters permit the recovery of the allowable production with a minimum of compressed gas input.

•

Alcohol-Gasoline Blends offer no hope for the economic disposition of farm products according to a survey of opinions gathered from a large number of leading chemical engineers, the survey being conducted under the sponsorship of the World Peace Foundation.

•

The New Gasoline Pipe Line being constructed by the Champlin Refining Co. from Enid, Okla., to Superior, Neb. will be placed in operation shortly after June 1. The 250-mile line is being tested now and initial gasoline deliveries will be limited by the capacity of the single pump station under construction at Enid.

•

Gasoline Taxes in California have risen to a point where there are indications consumption of motor fuel seems to be definitely curtailed as a result. Comparisons of collections now and a year ago form the basis for such a conclusion.

•

Filling Stations in Iowa, owned and operated by the Standard Oil Company (Indiana), are being leased to individuals as a result of the chain store tax law recently enacted in that state. Indiana passed a similar law a little more than a year ago and a similar move was made by the company there. Other major marketers are doing the same thing. It is estimated more than 800 names will be dropped from the payroll of the Standard as a result of the operation of the law.

•

Oil Marketing Practices in Michigan are to be investigated by the state, the Michigan legislature having authorized such as investigation with Senator J. A. Baldwin in charge.

•

Electrically Powered drilling equipment is playing an important part in oil field operations with advantages claimed for the combination of internal combustion engines and electric generators and motors on drilling rigs.

•

Selection of a Solvent for the refining of lubricating oils may be done correctly for any given fraction only if specific limitations of concentration, temperature and time for contacting are recognized.

What the Country Really Needs

—Drawn Exclusively for The Oil and Gas Journal.

New Cimarron Valley Gasoline Line Starts Deliveries in June

Picture taken during construction showing welded section of pipe being hauled into place

By W. T. ZIEGENHAIN

Shortly after June 1 the Champlin Refining Co. will start transporting gasoline by pipe line from its plant in Enid, Okla., to distribution terminals at Hutchinson, Kans., and Superior, Neb. The pipe line to be used is essentially a Champlin property, having been built by the Cimarron Valley Pipe Line Co., of which H. H. Champlin is president, Joe N. Champlin vice president and E. G. Wilmouth secretary and treasurer. The line itself is practically completed at the present time, the past few days having been spent in the final testing of joints with water and scrapers have been run through the line to assure the operators there is no obstruction in the line at any point. Actual pumping of gasoline and its delivery at Hutchinson and Superior is dependent upon progress made in constructing special tankage at these points.

At the present time three 10,000-bbl. tanks and one 37,000-bbl. tank are being built at each of the two distributing terminals. They are to be equipped with Wiggins roofs and will operate to augment refinery storage, as well as serve as work tanks. The completion of these tanks will provide about 120,000 bbls. of added storage for Champlin and it is the plan of the refining company to start making deliveries to the pipe line at a rate of about 3,000 bbls. a day to start with. This will be gradually increased to 4,000 bbls. and that material which does not find a ready market will be placed in storage at one or the other terminal. In this manner there will be no need to force more gasoline onto the market than the latter can readily absorb, and H. H. Champlin says he prefers to "Feel my way along" in the operation of the new pipe line. For the time being there is no need to locate a pipe line station at Hutchinson as was originally planned, but a station site has been chosen and one will be built there before the end of the year.

One Pump Station

For the present all pumping is to be handled by a new station erected near the refinery at Enid. This station is not completed and the company has not made a final choice in the type of engines to install. Two pumping units have been placed on temporary foundations for trial use, namely a 4½"x10" duplex reciprocating Fairbanks-Morse pump operated by a 60-horsepower Fairbanks-Morse motor and an eight-stage Goulds centrifugal pump connected directly to a 150-horsepower General Electric motor.

This single pump station is expected to handle all of the gasoline Champlin cares to transport northward for the next three or four months. Then upon the completion of a second pump station at Hutchinson, the refinery could increase its deliveries to up to 5,000 or 6,000 bbls. a day. At such a time business demands the capacity of the line intermediate pumping stations will be built and from 8,000 to 12,000 bbls. could easily be taken into the line daily, when such stations are built.

Upon the completion of the Cimarron Valley Pipe Line, Mid-Continent refiners are afforded a third gasoline pipe line through which they may deliver gasoline to the northern market. The new line is a smaller undertaking than either the Great Lakes or the Phillips systems but it deserves prominence through the fact that it is the largest item of pipe line construction in the Mid-Continent since 1930 when the other two gasoline lines were built, and one would need to go two years beyond that date to see any important work in laying crude oil lines within the territory.

The Cimarron pipe line does not conflict with either of the older systems but could be easily used to complement them. Some thought has been given by Mr. Champlin to making a physical connection to the Phillips system at Wichita, Kans., but no actual work in this direction has resulted. If this were done, it would permit the delivery of gasoline to points in northern Missouri as far east as St. Louis.

The principal justification for spending the $1,000,000 or more for the 250-mile line across Kansas and into Nebraska is to accommodate the large trucking business that has developed in the states of Nebraska, Kansas, Iowa and Colorado. It is also the hope of Mr. Champlin that he will be successful in getting rail rates out of Superior, Neb., adjusted downward and brought into conformity with existing mileage rates from comparable points.

With freight advantage on shipments out of Superior on material moving into other Nebraska points or into Iowa, the Dakotas or parts of Colorado compared with making shipments from Group 3, Chicago, St. Louis or Casper, Champlin is in a favorable trading position. It would be easy and to the advantage of several companies, probably, were Champlin to supply gasoline to certain stations and jobbers in Nebraska, Kansas, Colorado and the Dakotas now being supplied from say Chicago or St. Louis or Tulsa and in turn take an equivalent volume of gasoline in supplying Champlin stations in Illinois, Missouri or at other points.

Trading Practice Important

This practice of trading has become a very important item of savings among refiners in the past three years, and there is little hesitancy now to effect such trades.

So, assuming a portion of the Nebraska and Kansas business normally going to other companies will fall to the Champlin line, and because of favorable terminal facilities, trucking business will come to Champlin, it is well within reason that deliveries through the pipe line can mount to the 8,000 bbls. desired within a relatively short time and without endangering the market structure in that territory.

The test of time will have to prove this point but the Champlin Refining Co. enjoys a good standing in the oil marketing fraternity and has not been identified with damaging price cutting practices at the expense of all others.

To accommodate customers operating trucks, Champlin will provide loading racks at Superior and Hutchinson for the simultaneous loading of five trucks. This will attract some of the truck business going to central Kansas refineries equally well equipped with loading racks. Whether one or more central Kansas plants chose to utilize the Champlin line to make deliveries to trucks in Nebraska or concentrate on the local trade remains to be seen but this problem is before a number of companies.

The refining companies supplying the bulk of the gasoline in Kansas and Nebraska and that are most interested in the effect of the new Champlin line include the Standard Oil Co. (Indiana), Phillips Petroleum Co., Sinclair Refining Co., Socony-Vacuum Oil Co., Inc., Skelly Oil Co., Shell Petroleum Corp., Continental Oil Co., Texas Co., Cities Service Co., Barnsdall Refining Co., Derby Oil Co., National Refining Co., Mid-Continent Petroleum Corp., Wilcox Oil Co. and the Globe Refining Co.

Completed line ready to be dropped into the ditch

Refined Shipments in East Texas Drop; Overproduction Is Up 5,000 Bbls.

By L. E. BREDBERG

FORT WORTH, Tex., May 27.—Tank car shipments of refined products from the East Texas Field continue to decline. Only 854 cars went out last week, a decrease of 99 cars.

	Cars	Gallons
Gasoline	461	3,886,280
Casinghead gasoline	158	1,368,900
Fuel oil	87	814,300
Distillate	59	478,465
Kerosene	35	281,890
Gas oil	26	211,920
Naphtha	4	32,557
Residuum	4	32,844
	854	

Of these, 422 cars went interstate, 180 intrastate and 243 for coastwise movement.

The estimated overproduction in the field ran from 22,000 to 23,000 bbls. per day during the week, an increase of from 5,000 to 6,000 bbls.

The fugitive oil freed from refinery dikes by high waters in the Gladewater area, was trapped and is being recovered by the East Texas Refining Co. under supervision of John E. Taylor, appointed receiver by a Gregg County judge. The first 100,000 bbls. recovered was sold to the East Texas Refining Co. for 22½ cents per barrel, the next 50,000 bbls. for 17½ cents, and 12½ cents per barrel being paid for the remainder. This refining company is to pay all expenses for recovering the oil, the plants originally owning it to be paid out of the money received after the oil is recovered.

Several smaller refineries and gathering systems are soliciting connections in the field, offering to pay 2½ cents per barrel premium in some instances.

Jacks Petroleum & Refining Co. (John

(Continued on Page 32)

Petroleum Code and P.A.B. Knocked Out By Supreme Court

By HUGH D. MALLON
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., May 27.—By the unanimous action of the Supreme Court today invalidating the National Industrial Recovery Act, it is believed that the defeat of the Thomas oil control bill is assured, as is also the Wagner labor relations bill, the 30-hour work week bill, and others which rely upon their "effect" upon interstate commerce as their basis.

The court, in handling down the opinion on the Schechter Poultry Corp. case, involving the recovery act, clearly stated that trade or industry whose activity only indirectly affected interstate commerce was subject only to the control of the respective state. For this reason the majority of opinion here is that the proposed laws mentioned will not be passed by Congress.

Terming the National Industrial Recovery Act an unauthorized delegation of authority to the President and an encroachment upon the rights of the individual states to regulate their internal affairs the court struck down the act, thereby bringing to an end all code activities, either by Government or by industry.

All nine justices concurred in the opinion, which was read by Chief Justice Hughes, and in which the delineation of the authority of the federal Government to control interstate commerce was clearly brought out, as was also the length to which Congress can go in delegating authority to the executive branch of the federal Government.

The lack of standards or guides to assist the President in the formulation and approval of codes was also raised by the court, that point having been the deciding factor in the recently decided Panama case which invalidated Section 9 (C) of the recovery act.

Considering New Bill

Congressional forces, anxious for the rehabilitation of the recovery act in constitutional form, are carefully considering the decision and the implications contained therein. Although mature consideration has not yet been given to the opinion by members of Congress, it is expected that within the next few weeks a new law will be enacted to take the place of the invalid act.

Although neither senators nor congressmen would state definitely, the feeling is prevalent in congressional circles that any future law on the subject will be greatly restricted by today's decision. Members feel that no definite statement should be made until after conferring with Department of Justice and recovery administration officials.

P. & C. Halted

Although the Planning and Coordination Committee will not be disbanded at this time, J. D. Collett, chairman of the committee, has ordered that the committee cease all code activities. He has also advised regional state and local committees to the same effect, but instructing such committees to keep their personnel intact, ready to resume activities when, and if, a new law is passed by Congress.

The court, after an analysis of the poultry code and executive orders issued pursuant to the terms of the recovery act and affecting the poultry industry, launched into its decision on the broad issues involved in the case. They took up first two preliminary points raised by the Government in the argument, which attempted to show that the existence of the "grave national crisis" with which Congress was confronted when this act was approved, brought new powers to the legislature sufficient to legalize this type of law.

Crisis No Excuse

It was held, however, that the mere existence of such a crisis did not give the legislature any further power than it formerly had, although it was conceded that powers which had never been previously used might be brought into play. "Extraordinary conditions may call for extraordinary remedies," the court said, "but the argument necessarily stops short of an attempt to justify action which lies outside the sphere of constitutional authority. Extraordinary conditions do not create or enlarge constitutional power."

Coercive Codes

The court continued, "The further point is urged that the national crisis demanded a broad and intensive co-operative effort by those engaged in trade and industry, and that this necessary co-operation was sought to be fostered by permitting them to initiate the adoption of codes. But the statutory plan is not simply one for voluntary effort. It does not seek merely to endow voluntary trade or industrial associations or groups with privileges or immunities. It involves the coercive exercise of the law-making power. The codes of fair competition which the statute attempts to authorize are codes of laws. If valid, they place all persons within their reach under the obligation of positive law, binding equally those who assent and those who do not assent."

Passing on to the delegation of authority to the executive the court has this to say: "The Congress is not permitted to abdicate or to transfer to others the essential legislative functions with which it is thus vested. We have repeatedly recognized the necessity of adapting legislation to complex conditions involving a host of details with which the national legislature cannot deal directly. We pointed out in the Panama case that the constitution has never been regarded as denying to Congress the necessary resources of flexibility and practicality which will enable it to perform its function in laying down policies and establishing standards, while leaving to selected instrumentalities the making of subordinate rules within prescribed limits and the determination of facts to which the policy as declared by the legislature is to apply. But we said that the constant recognition of the necessity and validity of such provisions and the wide range of administrative authority which has been developed by means of them, cannot be allowed to obscure the limitations of the authority to delegate."

Fair Competition

This statement is followed by a searching analysis of the words "fair competition" and their legal meaning as applied to the codes promulgated under the act. Commenting on this subject the court says: "But it is evident that in its widest range, 'unfair competition,' as it has been understood in the law, does not reach the objectives of the codes which are authorized by the National Industrial Recovery Act. The codes may, indeed, cover conduct which existing law condemns, but they are not limited to conduct of that sort."

Referring to the Federal Trade Commission Act and the reference therein to unfair methods of competition the court said that in the case of that commission Congress created a quasi-judicial body with provision in the act for formal complaints, notice and hearing, for appropriate findings of fact supported by adequate evidence, and for judicial review to give assurance that the action of the commission is taken within its statutory authority.

Coming back to the recovery act the court says that this administrative procedure, or any procedure of an analagous character has been dispensed with, but that there is also greater difference between the two bodies in the subject matter considered by the two. The court says: "We cannot regard the 'fair competition' of the codes as antithetical to the 'unfair methods of competition' of the Federal Trade Commission Act." Fair competition under the codes has a much broader sense, it is pointed out, and is not restricted by the law, only by administrative mandate.

Lacks Clearness

Referring to the declaration of policy in the act as a "preface of generalities" which invalidates any action taken under its provisions because of the lack of clearcut delineation of its provisions, the court turned its attention to that section vesting in the President authority to approve or prescribe codes, holding in this connection that Congress cannot "delegate legislative power to the President to exercise an unfettered discretion to make whatever laws he thinks may be needed or advisable for the rehabilitation and expansion of trade or industry." Such sweeping powers as are contained in this section find no support in the decisions of this court, the decision stated.

"To summarize and conclude upon this point," the court said, "Section 3 (the code making section) of the recovery act is without precedent. It supplies no standards for any trade, industry or activity. It does not undertake to prescribe rules of conduct to be applied to particular states of fact determined by appropriate administrative procedure. Instead of prescribing rules of conduct, it authorizes the making of codes to prescribe them. For that legislative undertaking, Section 3 sets up no standards, aside from the statement of the general aims of rehabilitation, correction and expansion described in Section 1. In view of the scope of that broad declaration, and of the nature of the few restrictions that are imposed, the discretion of the President in approving or prescribing codes, and thus enacting laws for the Government of trade and industry throughout the country is virtually unfettered. We think that the code making authority thus conferred is an unconstitutional delegation of legislative power."

Invades States

After settling this point the court went on to consideration of the control which the recovery act attempted to wield over commerce, the court stating that the validity of the codes, apart from the question of delegation, rests upon the commerce clause of the Constitution. However, the court points out that from the general terms of the recovery act the act does not limit itself to interstate and foreign commerce, but attempts to authorize codes without limitation and to regulate and control intrastate activity as well as interstate and foreign.

Referring to this particular case the court held that the transactions under question were not "in" interstate commerce, the property having come to rest within the locality and being used locally.

Wages and Hours

The next point taken up was did the violation of code provisions as to maximum hours, minimum wages, and local sales at cut-rate prices, so affect interstate commerce as to bring the transactions within the purview of the commerce clause of the Constitution. In this connection the court said, "Where the effect of intrastate transactions upon interstate commerce is merely indirect, such transactions remain within the domain of state power. If the commerce clause were construed to reach all enterprises and transactions which could be said to have an indirect effect upon interstate commerce, the federal authority would embrace practically all the activities of the people and the authority of the state over its domestic concerns would exist only by sufferance of the federal Government."

Local Trade

Referring to the Minnesota rate cases, the court said, quoting from that decision, "In the intimacy of commercial relations, much that is done in the superintendence of local matters may have an indirect bearing upon interstate commerce. The development of local resources and the extension of local facilities may have a very important effect upon communities less favored and to an appreciable degree alter the course of trade. The freedom of the local trade may stimulate interstate commerce, while restrictive measures within the police power of the state enacted exclusively with respect to internal business, as distinguished from interstate traffic may in their reflex or indirect influence diminish the latter and reduce the volume of articles transported into or out of the state."

Going further on the subject the court said, "The distinction between direct and indirect effects has been clearly recognized in the application of the antitrust act. Where a combination or conspiracy is formed with the intent to restrain interstate commerce or to monopolize any part of it, the violation of the statute is clear. But where that intent is absent, and the objectives are limited intrastate activities, the fact that there may be an indirect effect upon interstate commerce does not subject the parties to the federal statute notwithstanding its broad provisions."

Returning to the case under consideration the court stated, "If the federal Government may determine the wages and hours of employes in the internal commerce of a state, because of their relation to cost and prices and their indirect effect upon interstate commerce, it would seem that a similar control might be exerted over other elements of cost, also affecting prices, such as the number of employes, rents, advertising, methods of doing business, etc. All the processes of production and distribution that enter into cost could likewise be controlled. If the cost of doing an intrastate business is in itself the permitted object of federal control, the extent of the regulation of cost would be a question of discretion and not of power."

Not Question of Economics

It is beyond the province of the court to consider the economic advantages or disadvantages which might accrue from a centralized system, in the federal Government, which seeks to govern wages and hours in intrastate trade and industry, the court pointed out, it being sufficient to say that the Constitution does not provide for such federal authority. Further, the court said the author-

(Continued on Page 32)

Many Oklahoma City Field Wells Produced by Intermittent Flow

By S. F. SHAW
Consulting Engineer, Westgate Oil Co.

Close-up of Oklahoma City well that is produced by intermitter mechanism from depth of about 6,200 feet

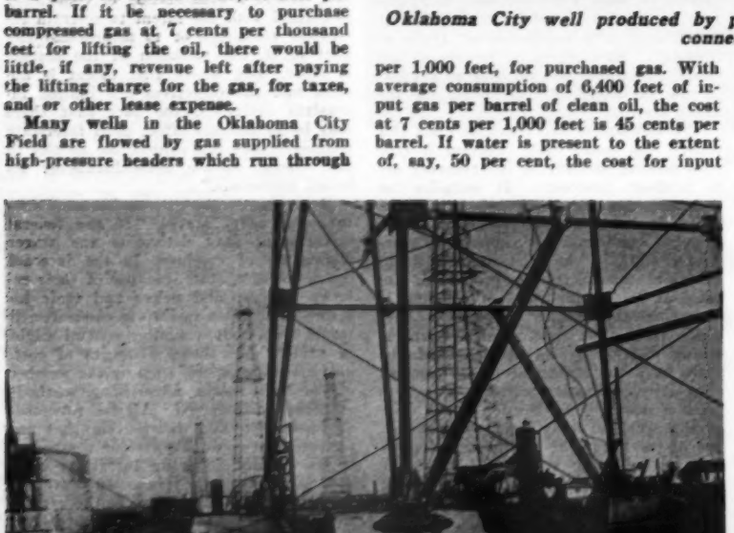
Intermittent flowing of oil wells has been practiced in the Mid-Continent and in California for several years. In Oklahoma, intermittent flowing has been applied to wells of 400 feet depth in the Nowata area, in wells of 4,000 feet in depth in the Seminole Field, and in wells of 6,500 feet in depth in the Oklahoma City Field. This form of gas-lift flow has also been employed in all foreign fields, including Argentine, Peru, Rumania, Trinidad, and Venezuela, therefore, its use has become rather widespread.

When the bottom hole flowing pressure in the Oklahoma City Field has declined to about 100 pounds, the average consumption of gas when using continuous flow is about 6,400 feet per barrel of oil, if there is no water present. The presence of water increases the consumption of gas.

In casings smaller than 7-inch O.D., the consumption of gas is greater than 6,400 feet per barrel when the capacity is about 100 bbls. per day, while in casings larger than 7-inch O.D. the consumption of gas when employing continuous flow is considerably less than 6,400 feet per barrel. In small wells capable of making less than 100 bbls. per day, the consumption of gas when flowed continuously through casing of 6⅝-inch O.D. with tubing of 2½-inch increases to a point in excess of 10,000 feet per barrel. If it be necessary to purchase compressed gas at 7 cents per thousand feet for lifting the oil, there would be little, if any, revenue left after paying the lifting charge for the gas, for taxes, and or other lease expense.

Many wells in the Oklahoma City Field are flowed by gas supplied from high-pressure headers which run through the field, costing about 8 cents per 1,000 feet measured on a 2-pound pressure base, or approximately 7 cents per 1,000 feet on an atmospheric pressure base. Since the capacity of a compressor is rated on the atmospheric pressure base, this basis will be employed in this article when referring to quantities of gas. Costs, therefore, will be taken as 7 cents per 1,000 feet, for purchased gas. With average consumption of 6,400 feet of input gas per barrel of clean oil, the cost at 7 cents per 1,000 feet is 45 cents per barrel. If water is present to the extent of, say, 50 per cent, the cost for input gas would be in excess of 90 cents per barrel of oil lifted.

Oklahoma City well produced by plunger lift device showing surface connections



Wells in town lot area in Sec. 22, Oklahoma City field. Showing regulator equipment used in connection with intermitter flow device

Intermittent Flow

Intermittent flowing is employed for producing oil wells after the pressure has become reduced and production has declined to a comparatively low point. It has been found when the flowing pressure has declined to some given point for any diameter pipe, that a greater production can be obtained by intermitting than when employing continuous, or "straight" gas-lift flow, also a lower consumption of gas will be required for lifting the oil.

It was observed in Seminole when the production of oil had declined to some point between 200 and 400 bbls. per day, that considerable economy could be effected in the use of input gas by placing the wells on intermittent flow. In wells of 6,500 feet in depth in the Oklahoma City Field, the point at which it is more economical to employ intermittent flow ranges from 200 to 1,000 bbls. per day, depending on the conditions existing.

During the past year, the use of intermittent flow has greatly increased in the Oklahoma City Field, since there has been almost no other choice of an economic method when the wells have declined to a low production, that is, 100 bbls. per day or less, and where the bottom hole flowing pressure is low.

Recent reports indicate that there are more than 250 wells equipped with different types of devices for intermittent flow in the Oklahoma City Field.

The types of intermittent flow employed in the Oklahoma City Field are as follows:

1. Flow through the annular space between casing and tubing without any device at the bottom of the well.
2. Flow through the annular space, with packer and valve at the bottom of the well.
3. Flow through the tubing without chamber at the bottom of the well.

Intermittent Through Casing Without Bottom Hole Device

The simplest form of intermitting is that of injecting gas at intervals through the tubing, and lifting the oil through the annular space.

In an instance of a well with 9-inch casing and 3-inch tubing, capable of producing on straight gas-lift at the rate of 3,000 bbls. per day, the well was produced on intermittent flow of the first type, at the rate of 300 bbls. per day with consumption of about 800 feet of input gas per barrel. When this well was produced at a high rate on continuous gas-lift there was a tendency for water to be drawn into the well, consequently intermittent flow was employed to remedy the situation. On this basis of input gas, the cost of compressed gas for lifting the oil was approximately 5.6 cents per barrel when operating on intermittent flow.

When the flowing pressure in wells has declined to a low point, instances are reported where the use of intermittent flow without a valve and chamber, or packer, at the bottom resulted in driving part of the oil back into the thick and highly porous sand that exists in the Oklahoma City Field. This objection can be remedied by running two strings of tubing in the well with chamber attached to the outside tubing and flowing through the inner string of tubing, or by the use of a packer and valve at the lower end of the tubing, and flowing the oil through the annular space.

Intermitting Through the Inner String of Tubing

Intermitting through a double string of tubing presents considerable difficulty in the Oklahoma City Field. In the first place, to permit frequent "cycles" or "trips," it is necessary that the outer tubing be at least 4 inches in diameter, and the cost of this extra string is a serious matter in a deep well. Moreover, to obtain frequent cycles would make necessary the use of very high pressure in these deep wells, in order that the gas may quickly reach the bottom hole chamber, also that it may balance the weight of a long slug of oil in the inner tubing. These objections have prevented the use of this type of intermitting in the Oklahoma City Field, to any extent, which was the prevailing method in the Seminole Field.

Intermitting Through Casing by Use of Packer and Valve

The "bottom hole intermitter" and the "stage-lift" are the chief devices employed for intermitting through the casing by using a packer and a valve on the bottom of the tubing. These devices are relatively inexpensive and have been em-

ployed in wells making 700 bbls. or more oil per day.

In an exceptional instance of the use of the intermitter in a well completed with 9-inch O.D. casing and 3-inch tubing, the consumption of input gas when flowing at the rate of 350 bbls. per day was approximately 1,000 feet (atmospheric pressure base), costing 7 cents per barrel as an average of a full month's operation.

The charge of 7 cents per 1,000 feet (atmospheric pressure base) is a fair charge when the plant has been erected by a company to handle commercially the production of outside wells, in as much as the equipment must be paid off within a short time in such a field as the Oklahoma City Field, where the operator of a well may decide to change to some other method with scarcely any notice. However, where it is feasible to install a compressor plant to service the wells that an operator may own, when considering the possibility of using the regular lease labor for handling the plant operation, the cost of compressing gas can be reduced to a lower figure than 7 cents per 1,000 feet and in this way reduce the operating cost per barrel to a lower figure. Moreover, the abandonment of wells is delayed by reducing the operating cost of the chief item of expense.

Intermittent Flow Through Tubing Without Bottom Hole Chamber

The use of intermittent flow through the tubing, without chamber at the bottom of the well, has not been successful in the Oklahoma City Field except with the special adaptation of the Hughes plunger lift. The plunger lift is being employed with tubing sizes of 2½-inch, 3-inch, and 4-inch in the Oklahoma City Field.

The capacity of the plunger lift is not sufficiently great to handle the production in large wells unless large sizes of tubing are employed, increasing the installation cost. The tendency in the Oklahoma City Field has been that of reaming the 2½-inch, or 3-inch tubing employed in the well on continuous gas-lift and installing the plunger-lift assembly of corresponding size. A new string of 4-inch tubing would be found to serve the purpose better than other sizes in the Oklahoma City Field.

The point at which it seems feasible to start using the plunger-lift in the Oklahoma City Field, judging from installations already made, is approximately as follows:

Diameter of tubing	Bbls. per day
2½-inch	100
3 -inch	150
4 -inch	200 to 300

Input ratios when using the plunger lift are low when compared with continuous flow on small wells. An input of 1,200 feet per barrel was noted in a well producing about 30 bbls. per day in a 2½-inch installation, but this is an exceptional case for so small a well. The plunger lift makes use of the formation gas to a considerable extent, and input ratios will, therefore, depend considerably on the quantity of formation gas present. Several instances in the Oklahoma City Field have been noted where the quantity of formation gas is sufficient to handle the flow in 2½-inch, 3-inch and 4-inch plunger-lift installations.

Controlling the Input Gas

Input gas can be handled manually by a lease attendant opening and closing a valve at the top of the well, and several instances are known where this method is employed, particularly where the operator owns only one well and an attendant must be present at all times at this one well. If several wells are to be handled on intermittent flow, it is probably more economical to employ a mechanical intermitter for admitting and closing off the gas into the well.

The prevailing types of mechanical intermitters in the Oklahoma City Field are those with clock attachment, making one or more revolutions per hour, and operating a diaphragm valve by means of a pilot valve. The types of intermitters being employed in the Oklahoma City Field are those of Fisher, Foxboro, Hanlon-Waters, Oklahoma Brass & Iron Works, Shipman, and Taylor manufacture.

The interval of time employed for a complete cycle usually ranges from 15 to 75 minutes. The time required for the oil to reach the separator after the gas is admitted varies from 4 to 8 minutes, depending on conditions of pressure and size of flow stringa. In the usual case, the gas is admitted until the oil reaches the well head, when it is shut off.

The frequency of cycles depends largely upon the production to be made. In flowing a well at maximum capacity, it is necessary that the number of cycles per hour be as large as possible. Four to five cycles per hour is about as frequent as is practicable in the Oklahoma City Field.

In a well of large capacity in which there is a low percentage of allowable, the cycles are usually spaced at relatively long intervals. For instance, a well with 9-inch O.D. casing having a capacity of 1,500 bbls. per day, in which the allowable is about 300 bbls. per day, would be flowed at intervals of about 1¼ hours, and the duration of gas injection about 7 minutes.

The consumption of input gas for such a well when flowed at different intervals would be approximately as follows:

Cycle interval	Bbls. per per day	Cu. ft. input gas per bbl. (atmospheric base)
75 min.	160	850
60 min.	200	900
30 min.	260	1,250

The field for application of intermittent flow appears to be enlarging as a better knowledge is built up on this method of lifting oil. The use of such a method in deep fields in growing in importance where it is necessary to hold the lifting expense to a reasonable figure.

Standards and Test Division N. P. A. Visit General Motors Laboratories

Members of the Department of Standards and Tests of the National Petroleum Association met in Detroit, Mich., May 24 and 25 as guests of the General Motors Corp. The program started with an inspection trip through the research laboratories which included a demonstration in the physical test laboratory where Clayton E. Patterson explained methods of testing extreme pressure lubricants and spoke briefly of his work. Arthur F. Underwood demonstrated a new rotary viscosimeter which is utilized in examining plastic and semiplastic lubricants. George K. Malone then demonstrated lubrication studies, particular attention being given to types of wear. Drs. Lloyd L. Withrow and Gerald M. Rassweiler next demonstrated flame studies in a combustion chamber observed through quartz windows by the stroboscopic method. The plating laboratory, chemical analysis laboratories and paint and finish laboratories were next visited.

A. L. Boegehold gave a very interesting talk illustrated by photo-micrographs and specimens of the new alloy bearing metals particularly stressing the structure requirement of the copper-lead alloy. It was pointed out that the lead must be discontinued in the copper matrix if failure due to corrosion and fatigue is to be delayed. Brief examination was given to the engine for Diesel fuel studies, gasoline knock testing, rubber laboratory and fan belt testing machine. Walter Jominy next demonstrated a new undertaking, a fundamental study of wear. The spring testing machinery was briefly examined and the facilities of the technical library where shown. G. J. Swigert next demonstrated the carburetor metering tank and the glass working models of carburetors. Next followed an inspection of the wind tunnel and a lifting thermocouple magnet. The ignition laboratories were next visited where the method for fundamental study of ignition circuits made with the cathode ray oscillograph was demonstrated. The x-ray laboratories proved of interest when the shadowgraphs and diffraction studies were illustrated. The visit closed with an inspection of the spectrum laboratories, the cold test room and the general exhibit room.

The annual banquet of the department was held at 6:30 Friday night, May 24, in the Green Room of the Book-Cadillac Hotel where Dr. H. C. Mougey presented an illustrated paper on automotive lubrication. The points particularly stressed in the talk were the necessity of light oils for cold weather starting, studies of oil consumption of different viscosity oils at different road speeds indicating that engine speed is much more important than viscosity in determining oil consumption. He made it a particular point that the oil tests presently used do not correlate particularly well with service value and warned the assembled oil men that strictly from a service angle they might be needlessly spending money in new refinery installations without achieving corresponding improvement in the service characteristics of their product. He emphatically asserted that sludge formation was not a problem in his eyes, indicating that a given test engine lubricated with an oil of only 10 hours' sludging time according to the Standard of Indiana tests, gave 25,000 miles of satisfactory operation without draining the crankcase and in this run showed no loss of efficiency that could be attributed to sludge. This was cited not as an isolated case but as typical of his experience. When questioned further about sludge trouble, Doctor Mougey asserted that quite possibly most of the present sludge complaints reaching oil companies were directly traceable to the oil advertising now so plentiful stressing sludge and its dangers and not traceable to unsatisfactory operation caused by sludge. He discussed at some length the present tendency to add materials to motor oils to give them extreme pressure characteristics stating that even present day engines with their high speeds and resulting high loads nowhere developed pressures that demanded extreme pressure lubricants. He also warned that certain materials used for this purpose were definitely harmful to the newer types of bearing metals. H. R. Wolf strongly seconded this statement that automotive engines had no need for lubricants with extreme pressure characteristics, but said that such products found their proper application in some of the present day transmissions and differentials. Doctor Mougey also referred to the present possibility that the S.A.E. definition of motor oils might soon be altered and showed one proposal, the essential point of which was a limiting 210 maximum viscosity for 20-W which would prevent the marketing of high viscosity index oils having a zero extrapolated viscosity of less than 40,000 seconds as 20-W if their 210 viscosity were greater than 57 seconds. This matter, he said, would be considered by a special committee of the Society of Engineers some time during the week of June 2. A great amount of discussion was provoked by Doctor Mougey's paper at the conclusion of which Willis Crane, the national executive of N.P.A., expressed the thanks of the group and of the association for the courtesies shown by the General Motors Corp. and suggested the possibility of a fall meeting for the department, details of which would be announced later. The meeting closed with an all-day inspection of the General Motors proving ground on Saturday. The following members were in attendance: A. K. Wickham, of Allegany Refiners, Inc.; F. W. Irwin, of Ashland Refining Co.; Russell R. Buckham, of James B. Berry Sons Co.; Willis A. Johnston, of Bradford-Penn Refining Corp.; Robert E. Dunham, of Conewango Refining Co.; Willis J. Hannigan, C. E. Kinder and E. M. Keels, of Crew-Levick Co.; A. Kinsel, of Daugherty Refining Co.; L. W. McClemans, of Franklin Creek Refining Corp.; H. C. Mougey and H. R. Wolf, of General Motors Corp.; H. J. Johnson, of Gulf Oil Corp. of Pennsylvania; H. C. Hunter, of Gulf Research & Development Corp.; Phillips Rich, J. B. Robinson, C. E. Hulme and Frank Philipplar, of Kendall Refining Co.; J. C. O'Brien, of Loco Vacuum Co.; Victor I. Downey and C. A. Peterson, of the National Refining Co.; Willis Crane, of N.P.A.; Raymond Dardes, of Oil Creek Refining Co.; James L. Eisler, of Pennsylvania Refining Co.; George O. Ebrey and Thomas J. Haskins, of Pennzoil Co.; Edgar T. Coleman, T. J. Planker and F. E. Williams, of Quaker State Oil Refining Corp.; W. G. Ainsley, M. Fairlie and A. W. McCalmont, of Sinclair Refining Co.; Ryan Storey, of Ultra Penn Refining Co.; Louis A. Calkins, A. S. Hagan and Roman L. Sailer, of Valvoline Oil Co., and L. M. Baltzell and W. B. Smith, of Wolverine Empire.

L. A. Ogden Is Chairman Mid-Continent A.I.M.E.

L. A. Ogden, chief production engineer, Pure Oil Co., Tulsa division, was installed as chairman of the Mid-Continent section of the A.I.M.E. at the annual meeting held in the University Club the evening of May 20. Mr. Ogden has been with the Pure Oil Co. for about three years, coming to Tulsa from the Empire Oil & Refining Co., Bartlesville, Okla.

L. A. OGDEN

Chairman, Mid-Continent Section, American Institute of Mining Engineers, Tulsa

The other officials of the Mid-Continent section are M. L. Terry, the Texas Co., Tulsa, first vice chairman; R. T. McNally, Shell Petroleum Corp., Tulsa, second vice chairman, and C. C. Robbins, Carter Oil Co., Tulsa, secretary-treasurer.

The executive committee is composed of L. L. Foley, Marathon Oil Co., retiring chairman; Frank O. Prior, president, Stanolind Oil & Gas Co.; P. H. Bohart, vice president Gypsy Oil Co., and Richard T. Lyons, vice president Skelly Oil Co., all of Tulsa.

Clifton R. Swarts, petroleum engineer, Lago Petroleum Co., Maracaibo, Venezuela, S.A., gave an interesting talk upon production practices in the Maracaibo Basin are of South America.

TRIMBLE LEAVES NATIONAL

H. G. Trimble, for many years manager of sales for the National Supply Co., has resigned, effective May 27. Mr. Trimble has been making his headquarters in Tulsa.

Experience in Use of Electrically Powered Drilling Equipment

By G. R. PROUT
General Electric Co.

Fig. 1—Direct current draw works motor, enclosed, forced ventilated 150 h.p., 450 r.p.m., 230-volt continuous rated, driving draw works on a rotary rig using Ward Leonard control on the Gulf Coast

Steam was the first form of power used for drilling oil wells and is the most common power in use today for this purpose. However, due to several factors, there is widespread interest among drilling contractors and oil companies in internal combustion engines and electric motors for rotary drilling rigs.

The steam engine has a very desirable speed-torque characteristic for doing the work required on a rotary rig. This is true for both the draw-works and the mud pump.

Properly designed electric equipment, when used with purchased power or internal combustion engines, however, can also do the work in a very successful and economical manner.

The draw-works load varies widely and is one that requires a prime mover to have several characteristics found in relatively few types of machines.

The machine driving the draw-works should be capable of providing speed control; it should be capable of running at a relatively constant speed with moderate loads; it should be capable of carrying high intermittent loads on hoisting duty; it should be able to exert very high torques at very slow speeds to start the load off bottom easily; it should have high speed at light loads to give high speed when handling the empty hook; it should be sturdily built to stand the rough service encountered in drilling practice; it should reduce the fire hazard to a minimum; and it must be portable.

The machine driving the mud pumps need not provide the wide variation of characteristics required of the machine driving the draw-works. However, it must provide speed control; it must be sturdy, portable and safe to operate; and it is desirable this machine slow down very appreciably or even stall on high overloads to prevent damage to the fluid end of the pump when excessive pressures, due to plugged bit or pipe, occur.

Alternating current motors and control equipment have been developed that will fulfil the above requirements to such a degree that quite a large number of A. C. electric rigs of this type are being used by drilling contractors and oil companies. These rigs have been used to drill a great many wells.

In certain localities electric power companies are in a position to furnish electric energy for drilling and the power costs permit economical drilling with electricity. However, as some drilling is done in places where purchased electric power is not available, most drillers must depend on some form of engine.

Fig. 2—Direct current mud pump motor, enclosed, forced ventilated 150 h.p., 450 r.p.m., 230-volt continuous rated—one of two motors driving mud pumps on a rotary rig using Ward Leonard control

While the steam engine possesses operating characteristics that meet the requirements of the load of a rotary rig, frequently the difficulty and expense of obtaining water and the expense of fuel and its transportation is causing oil companies and drilling contractors to consider seriously the internal combustion engine for drilling.

A number of rigs, using engines of this type, are now in drilling service and many are being used with electric generators and motors. On most of these rigs, one engine is used to furnish energy to the draw-works for rotating and for light hoisting service, while the other is used to drive the pump. Since the mud pump is not in service when the rig is hoisting heavy loads, both the mud pump engine and the draw-works engine can be used together for hoisting service. When this is done the horsepower capacity of the two engines together is ample for hoisting drill pipe.

However, the internal combustion engine does not have a speed-torque characteristic like that of a steam engine and if mechanical connection between the two engines and the draw-works is used, the load must still be picked up off bottom by the use of a clutch. This puts heavy stresses throughout the rig from clutch to engines, which naturally increase maintenance. This type of rig does not permit the flexibility of steam operation although several such rigs are in operation.

The electric generator and motor, however, make it possible to secure the economical advantages of the internal combustion engine, and at the same time, secure operating characteristics similar to

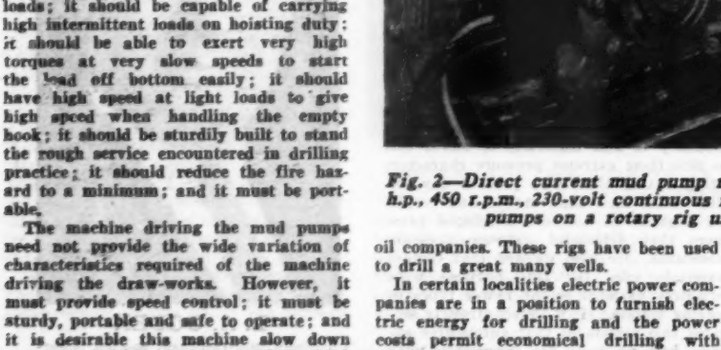


Fig. 3—One of the two direct current generator and exciter units direct connected to Diesel engines used on a rotary rig. Generator rated 125 k.w. 250-volt, 600 r.p.m. differentially compound wound for Ward Leonard control

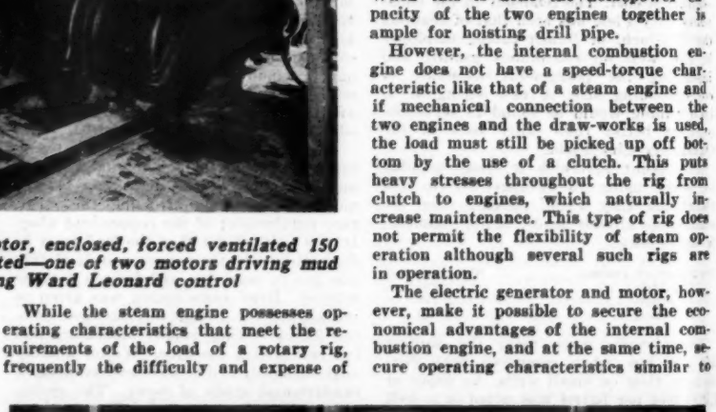


Fig. 4—Generator field controllers for Ward Leonard control of the draw works motor and mud pump motors on a rotary rig

those of steam engines on drilling rigs. Both alternating and direct current equipment are being used on rigs of this type and both are performing successfully in the field.

In applying electrical equipment either A.C. or D.C., to internal combustion engines for drilling it is first necessary to consider the results desired. First, the driller wants to be able to turn the table and pump mud, he might also want to come off bottom, rotate slowly and circulate, and he will also want to be able to hoist drill pipe.

Direct Current Equipment

To provide great flexibility in operation, direct current equipment using generator voltage or Ward-Leonard control was developed. This type of control requires a separate generator for each motor to be operated, and while two or even more generators can serve one motor, more than one motor on different loads, requiring different speed characteristics, cannot be served by a single generator.

With this type of equipment one engine may drive a generator and exciter to furnish energy for the draw-works motor for turning the table or hoisting, when the hoisting load does not exceed the normal output of one engine. The other engine may drive a second generator and exciter for furnishing energy to the mud pump motor. Then both generators can be put together, either in parallel if designed for this service, or in series if properly designed and of the same rating, to furnish energy to the draw-works motor for hoisting service, where the load requires more than the output of one engine.

It is also possible to furnish the above two generators and exciters as a unit on one base and arranged for "V" belt drive from both engines. This permits both engines to furnish energy to both generators under all drilling operations. When one engine is lightly loaded, as it would be if carrying only the generator supplying the draw-works motor while turning the table, its excess capacity could be used to help the other engine to drive the mud pump generator which might require more power than only one engine could put out. Also, if one engine went down, it could be disconnected from the unit by throwing out a clutch, or otherwise disconnecting it, and drilling operations could continue at a reduced speed within the capacity of the other engine. The engine governing problem with this arrangement, however, is one that must be taken into account and properly solved.

It is also possible to put two generators of the same size or of different sizes on one engine and use either one or two engines on a rig depending on how much power will be required to drill holes in a certain area. This arrangement provides many advantages to a contractor or oil company.

Desirable Advantages

Regardless of the scheme used, however, the use of D. C. electric equipment with internal combustion engines affords many desirable advantages:

1. The maximum output of the engines can be limited by proper generator design to that which the engines can safely develop. This saves engine maintenance and prevents excessive peak loads from being imposed on the engines which might stall them and cause loss of time, or might spring, or even break a crank shaft.

2. The maximum output of both engines can be fully and easily utilized by the draw-works, motor, for hoisting service.

3. High speed when handling the empty hook is obtained automatically by draw-works motor and generator design. This reduces pulling time.

4. The mud pump motor will slow down or even stall, when excessive pressures occur, due to a plugged bit or pipe. This feature saves the fluid end of the pump from damage and also protects the pump transmission against excessive overloads.

5. High torque at very low speeds of the draw-works motor is obtained, by proper draw-works motor and generator design. This permits easy starting of the load off bottom and keeps the stresses in the rig, from hook to engines, from reaching excessive values due to shock, which saves maintenance on the whole rig.

6. If two engine-generator units are used, either one can be used quickly and conveniently to furnish energy to the draw-works motor. This permits coming out of the hole in an emergency if one engine goes down. In certain cases where two generators are driven by both engines, the bit can be raised off bottom, the table rotated slowly and mud can be circulated, if either engine is in service. This will permit staying in the hole, if this is desirable, while one engine is being repaired.

7. The equipment can be arranged for compounding the mud pumps.

8. Proper design of generators permits them to divide load equally if they are of the same size, or in proportion to their ratings if one is larger than the other. The latter requires parallel operation.

9. The engines operate at constant speed regardless of the requirements of the load. This permits more convenient operation of the rig and also reduces maintenance expense.

10. The engines can be operated at reduced speed when the load is light during the early stages of drilling.

In considering this equipment it is easily seen the speed-torque characteristic of the internal combustion engine is converted by the generators and motors, from one which does not readily meet the requirements of a rotary drilling rig, to one that does meet these requirements. In other words, a rig using this type of equipment will operate with the convenience and flexibility of a steam rig.

The electrical equipment, if properly designed and built for this service, will operate over a long period of time with very low maintenance expense.

A number of rigs have been equipped with totally enclosed, externally ventilated motors of sturdy design and construction as shown in Figures 1 and 2. Such motors are supplied with fresh air from a source away from the rig and consequently if gas is present at the rig, this type of motor can be operated with little danger of explosion. This type of construction also permits a motor of certain physical dimensions to develop higher horse-power than other types of design. Open motors can also be furnished for this service if preferred.

A. C. Equipment

The alternating current motors and control equipment developed for rotary drilling rigs where purchased electric energy is available, or for use with internal combustion engines, is designed and built to give flexible, safe operation of the rig. The draw-works motor is capable of carrying high overloads as imposed in hoisting service and otherwise meets the requirements of the draw-works load to an extent which makes this equipment acceptable to drillers. The mud pump motor also does its work so as to

(Continued on Page 22)

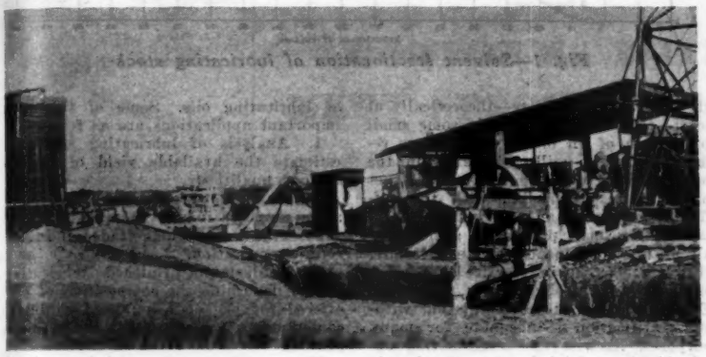


Fig. 5—Alternating current rig on location in Oklahoma using gas-gasoline engine driving 375 k.v.a., 300 k.w., 480-volt generator

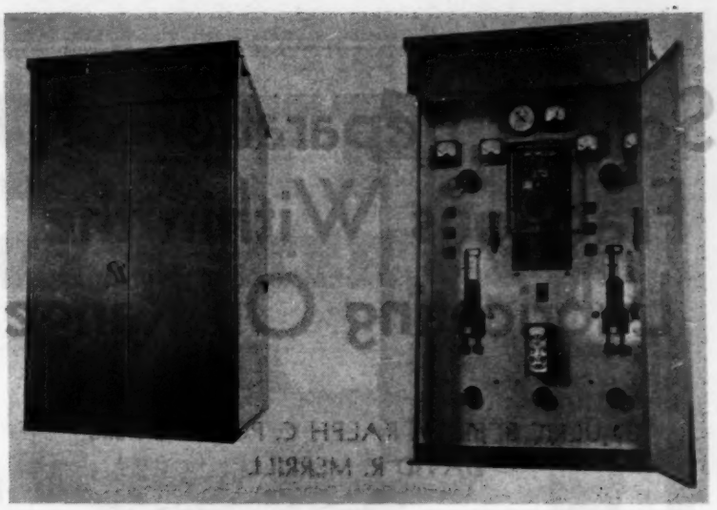


Fig. 7—Outdoor control unit for generator on alternating current rotary rig

Fig. 8—Alternating current draw works motor with enclosed collector rings using purchased power. Motor rated 200 h.p., 720 r.p.m., 440-volt continuous

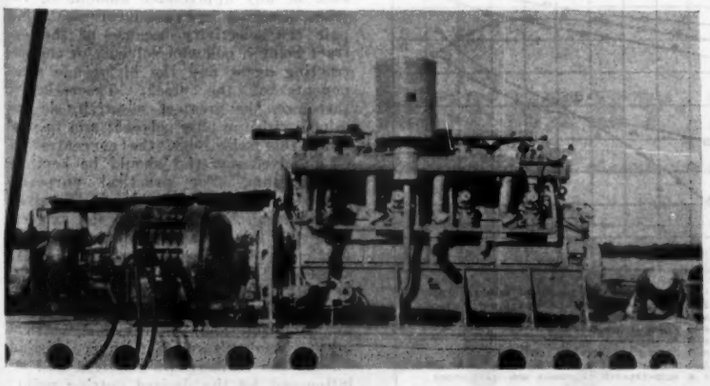


Fig. 6—Alternating current generator, 375 k.v.a., 300 k.w., .8 p.f., 1200 r.p.m., 480-volts, 3-phase, 60 cycle direct connected to gas-gasoline engine for A. C. rotary rig

Solvent Separation of Fractions Within the Lubricating Oil Range

By ULRIC B. BRAY, RALPH C. POLLOCK and DAVID R. MERRILL
Union Oil Co. of California*

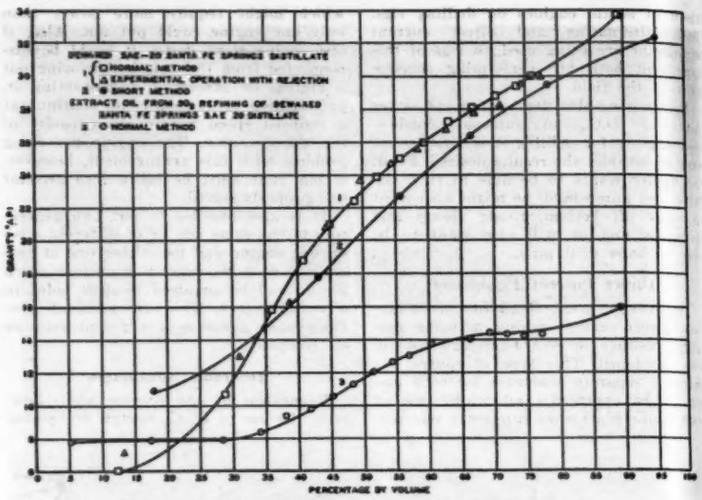

DEWAXED SAE-20 SANTA FE SPRINGS DISTILLATE
NORMAL METHOD
EXPERIMENTAL OPERATION WITH REJECTION
SHORT METHOD
EXTRACT OIL FROM 30° REFINING OF DEWAXED SANTA FE SPRINGS SAE 20 DISTILLATE
NORMAL METHOD
GRAVITY °A.P.I.
PERCENTAGE BY VOLUME

Fig. 1—Solvent fractionation of lubricating stock

It is well recognized that lubricating oils obtained from petroleum are complex in composition, and that the usual physical and chemical tests give average values for the oil as a whole, rather than information on its range of composition. Distillation, followed by application of the usual tests to the respective cuts, extends our knowledge of the composition of the oil; but at best this type of segregation of the oil into component fractions effects a grouping of the components only as regards boiling points or molecular weights, and fails to give a clear picture of the chemical make-up of the oil.

The use of solvents to effect a separation of hydrocarbon oils into components of varying chemical types has been studied by many investigators.[1, 2, 3] during the last 30 years, and the literature on solvent extraction is now quite voluminous. The work of the earlier investigators was not particularly successful, largely because of using unsuitable solvents and applying them to stocks of excessive boiling range. In the last few years attention has been directed principally toward the development of solvent-refining processes, but the need is still felt for an analytical method of separating and classifying the components of a lubricating oil according to chemical structure. During the course of experimentation on solvent extraction in the laboratories in the Union Oil Co., a routine analytical procedure has been developed for the multiple-batch method of extraction. The purpose of this paper is to present this procedure and to show that reproducible and informative composition curves for lubricating oils can be obtained by the choice of conditions of extraction in accordance with definite principles.

Study of Factors

In a study of the factors influencing fractionation in solvent extraction, the analogy to the more familiar fractionation by distillation is helpful. This analogy has doubtless been recognized for some time by investigators in this field, and has recently been discussed in some detail by Saal and Van Dyck[4]; so that it is sufficient to point out the similar function of the solvent in a solvent-extraction operation and the steam in the usual steam distillation in which no liquid water is present in the still. It is frequently the practice in steam distillation in a batch still to adjust the still temperature as the distillation progresses, so that the oil and water are recovered overhead in a constant ratio. Under such conditions the still or vapor temperature plotted against the percentage of oil distilled will follow a definite and reproducible curve for any given stock. Similarly, in analytical solvent extraction, it is desirable to maintain a substantially constant concentration of oil in the extract phase. This is readily accomplished by raising the temperature between one batch extraction and the next. If a constant volume of solvent is used for each extraction, and the concentration of oil dissolved in the solvent is maintained approximately constant, cuts of uniform size will be obtained. In solvent fractionation, separation is accomplished through differences in solubility. These differences are due principally to variation in chemical composition in a mixture of compounds of about the same molecular weight. It is apparent that, just as in a steam distillation cuts of successively higher molecular weight are obtained by progressively raising the temperature, so in solvent extraction cuts of increasing paraffinicity may be obtained by starting the series of extractions at a low temperature and progressively working upwards.

For the sake of convenience in the absence of strict knowledge regarding the molecular configuration of each hydrocarbon compound present, we may follow the change in chemical structure by the change in some property dependent on molecular composition, such as gravity, viscosity, or refractive index for a given molecular weight (or, more strictly, number of carbon atoms in the molecule). When successive extract fractions are subjected to inspection tests and the respective values are plotted against the total amount of material removed up to the mid-point of the cut in question, composition curves are obtained which are analogous to an ordinary Engler distillation curve. It will be recalled that the Engler distillation approximates a simple distillation without rectification, in that at any instant the vapor is in equilibrium with the liquid remaining in the still; and, therefore—theoretically at least—the vapor will contain some small proportion of all of the components remaining in the still. Similarly, in the batch method of extraction, the extract phase is in equilibrium with the raffinate remaining, and theoretically contains some small proportion at least of all of the components of the raffinate. However, just as in practice the degree of fractionation obtained in the usual Engler or batch steam distillation without rectification is adequate for many purposes, likewise the fractionation obtainable in multiple-batch extraction is valuable in giving composition curves.

Differences in Vapor Pressure

In simple distillation the differences in vapor pressure of the components can be accentuated, and the fractionation consequently improved—through operation at a lower temperature under reduced pressure or with a carrier gas, such as steam. Similarly, in solvent extraction the differences in solubility of the components in the solvent can be accentuated and the efficiency of separation improved by operating at the lowest temperature consistent with a reasonable yield of extract for each batch of solvent. Fundamentally, the two most important principles in analytical solvent extraction by the multiple-batch method are: (1) operation at temperatures increased at such a rate as to give constant oil concentration in the successive extract phases; and (2) choice of temperatures in general sufficiently low as to restrict the oil concentration in the extract phase to a reasonably small value. With proper attention to these principles and to certain operating details, the fractionation obtained permits analysis of practically all classes of lubricating oils. Some of the more important applications are as follows:

1. Analysis of lubricating stocks to estimate the available yield of oils of various qualities.
2. Analysis of extract oils produced as by-products in solvent refining to estimate the loss of high-grade oil in the refining operation.
3. Analysis of finished lubricating oils to determine the composition of oils offered for use or being used as lubricants, and as a control on the refining process.

The procedure to be used for each of these groups will be described separately, but it is believed advisable to point out first certain essentials which the operator should follow with all classes of oils.

Precautions to Be Observed

In order to obtain the most reliable data, the following precautions should be observed:

1. Choose the temperature and volume of solvent for each batch extraction to give a maximum of 4 per cent to 6 per cent oil concentration by volume in the extract phase.
2. Allow sufficient time of agitation at extraction temperature to guarantee equilibrium between phases.
3. Allow ample time of settling at extraction temperature to give complete separation of phases, and carefully avoid drawing any of the raffinate phase with the extract phase.

Because of its influence on the selectivity of the solvent, too much emphasis cannot be placed on the necessity of restricting the concentration of dissolved material in the extract phase. The ideal solvent will have infinite solvent power for materials below a certain gravity or viscosity index, and practically no solvent power for materials of higher gravity or viscosity index—with the point of differentiation or cutting dependent upon the temperature. Even with this ideal solvent, it is probable that the presence of any appreciable amount of extract dissolved in the solvent would impair the selectivity because of the extract being a common solvent for the extracting agent and the high-grade components of the stock. Theoretically, therefore, the greatest selectivity is obtained with the pure solvent; and to preserve this selectivity, the concentration of dissolved material should be kept at a minimum. For practical purposes, however, several per cent of dissolved material can be tolerated in the extract, with the tolerance depending upon the particular selective solvent. Obviously, successive cuts of any desired size can be obtained without exceeding the desired concentration in the extract phase—by using sufficient solvent and restricting the temperature. For any particular solvent the temperature required will be influenced by the desired cutting point, and the actual proportion of the stock existing below this cutting point. For example, aniline may be used efficiently

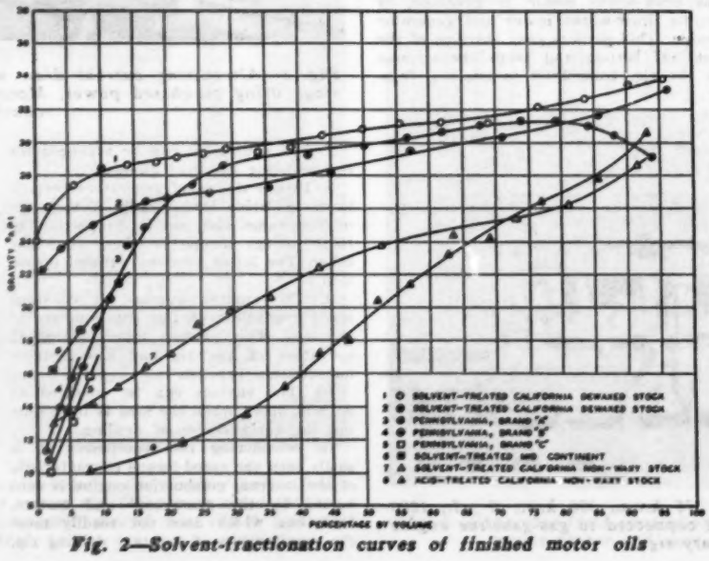

1 SOLVENT-TREATED CALIFORNIA DEWAXED STOCK
2 SOLVENT-TREATED CALIFORNIA DEWAXED STOCK
3 PENNSYLVANIA, GRADE "A"
4 PENNSYLVANIA, GRADE "B"
5 PENNSYLVANIA, GRADE "C"
6 SOLVENT-TREATED MID CONTINENT
7 SOLVENT-TREATED CALIFORNIA NON-WAXY STOCK
8 ACID-TREATED CALIFORNIA NON-WAXY STOCK
GRAVITY °A.P.I.
PERCENTAGE BY VOLUME

Fig. 2—Solvent-fractionation curves of finished motor oils

*Presentation at Mid-Year Meeting, A.P.I., Tulsa.
Author's title: "Analytical Solvent Fractionation of Lubricating Oils."

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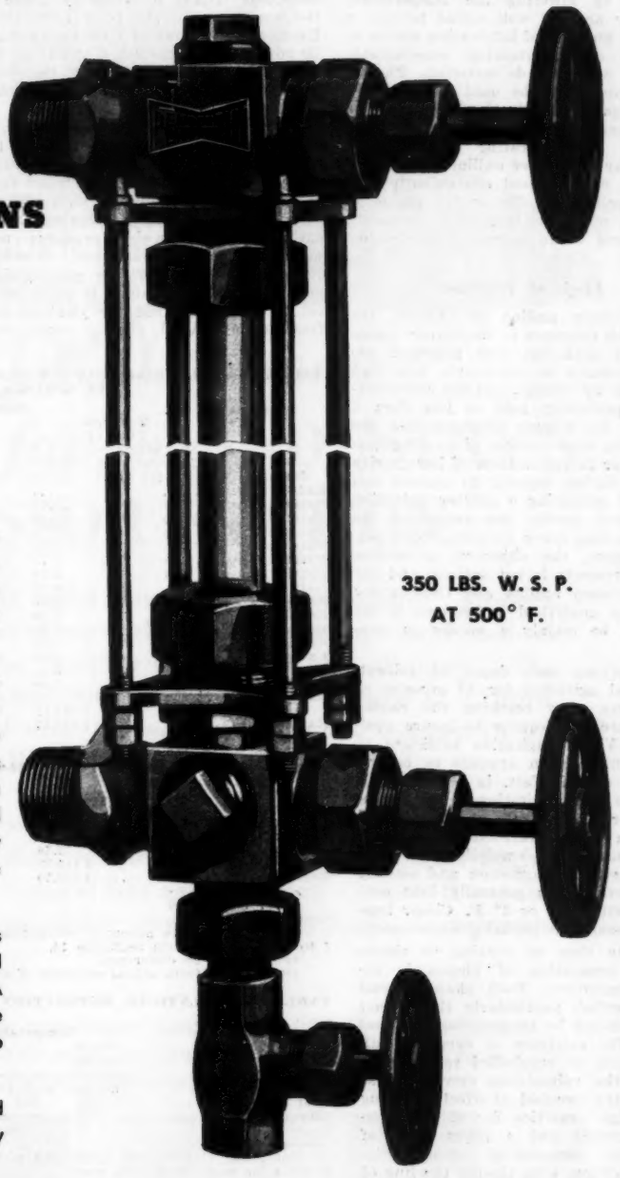

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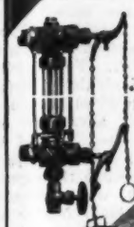
"Navy Type" Liquid Level Gage

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Gas Engine Lubricator

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Plain Brass Oil Cup

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at approximately 100° F. to remove fractions having gravities in the range of about 15° to 20° A.P.I., whereas the chloroanilines require a temperature in the neighborhood of 50° F. to accomplish approximately the same results.

Also, certain solvents such as phenol, chloroaniline and nitrobenzene can tolerate, without losing appreciable selectivity, a higher percentage of extract than other solvents, such as Chlorex, sulphur-dioxide—benzene, furfural and aniline. The solvents shown in the first group, however, have high solvent power for low-gravity components of lubricating stock, even at temperatures approaching their freezing points. In consequence, their solvent power cannot be sufficiently reduced by lowering the temperature, and they are not well suited to give a complete analysis of lubricating stocks or finished oils containing considerable amounts of low-grade materials. Phenol, for example, may be used satisfactorily in segregating lubricating materials of better than 20° A.P.I. gravity, but it is unsuited for separating materials of lower gravity. Either aniline or Chlorex, however, can be used conveniently and satisfactorily over the entire range of gravities or viscosity-gravity constants encountered in an untreated lubricating stock.

Limit of Tolerance

With either aniline or Chlorex, the limit of oil tolerance in the extract phase consistent with the best practical analytical results is apparently less than 8 per cent by volume, and the concentration is preferably held at less than 6 per cent by volume. Chlorex has the advantages over aniline of causing less charring or polymerization of low-gravity extracts during topping to remove solvent, and producing a greater reduction in viscosity during the extraction, as well as having lower toxicity. With reasonable care, the objection to aniline in these respects is not serious, and the choice between aniline and Chlorex for conducting analytical extractions is believed to be mainly a matter of convenience.

In applying each dump of solvent, mechanical agitation for 15 minutes to 20 minutes after reaching the chosen temperature is adequate to insure equilibrium. Violent agitation sufficient to cause emulsification appears to be unnecessary and, in fact, is less desirable than more gentle agitation on account of the danger of failing to secure complete separation of the raffinate out of the extract phase after emulsification. During the period of agitation and settling the temperature is generally held constant to within 2° or 3° F. Closer temperature control is probably unnecessary.

Adequate time of settling to obtain complete separation of phases is extremely important. Both phases should be well settled, particularly the extract—which should be transparent, and not murky. The existence of even a small concentration of emulsified raffinate or stock in the voluminous extract phase will have the two-fold ill effect of giving unduly high gravities for the contaminated extracts and a lower yield of high-gravity components subsequently. As a precaution, even though the line of demarcation between the phases is very sharp, it is believed that no attempt should be made to withdraw the last trace of extract phase. With Chlorex, a settling time of about one hour at the lowest temperatures required on a medium-viscosity lubricating distillate is generally adequate, although a more viscous stock will require a longer time.

Analysis of Stocks

The analysis of a lubricating stock can be carried far enough to give a complete composition curve, or only sufficiently to give yields of oil of specification quality remaining as the raffinate. The gravity of the raffinate at any point may be calculated arithmetically from the gravities of the stock and extract fractions in conjunction with the respective extract-yield figures, and verified by actual tests on the raffinate or on recomposites of raffinate and the proper extracts in case the raffinate has been carried beyond specification quality.

To obtain the most reliable composition curve for untreated lubricating stocks using Chlorex as the solvent, it is recommended that the solvent be applied in dumps of 200 volume per cent, and that the extractions be started at approximately 0° F., and the temperature raised at a maximum rate of 10° F. between consecutive dumps. When the character of the material removed is changing only slowly, more than one dump can often be applied advantageously before raising the temperature. The temperatures at which the multiple extractions are performed may be varied with the average molecular weight or viscosity grade of the stock during the later extractions. Using either aniline or Chlorex, an SAE-50 stock may be extracted at 25° or 30° F. higher temperature during the latter part of the fractionation than an SAE-20 stock.

As an example of the procedure employed and the results obtained, the data shown in Table 1, and reproduced graphically in Figure 1, are taken from the complete fractionation with Chlorex of a dewaxed Santa Fe Springs lubricating distillate which produces normally an SAE-20 raffinate. Curve 1 represents a plot of the gravity-yield data shown in the table. It is of interest to point out that the yield of raffinate of 30.0 A.P.I. gravity, corresponding in this case to a viscosity-gravity constant of 0.807, was calculated to be 49.5 per cent on the basis of the gravity of the stock and the extract-gravity curve, and that this calculated yield was later checked within 1 per cent by compositing the final raffinate and extracts until a gravity of 30.0 A.P.I. was obtained. To illustrate the reliability of this figure, it may be stated that this stock gave within 1 per cent or 2 per cent of the same yield of specification oil of 0.807 viscosity-gravity constant when subjected to efficient continuous counter-current extraction with sulphur-dioxide—benzene in 12 stages. It is interesting to note that although two different solvents were used—the one for analytical fractionation of the stock and the other for refining the stock—the results are in agreement.

Consideration has been given to the possibility of improving the results of the foregoing method of analytical fractionation of lubricating stocks by combining a rejection step with each extraction. Instead of performing the extraction with a given dump of solvent at a specified temperature by simply mixing, settling and separating the phases as just described, the same amount of solvent is agitated with the stock, or raffinate from a previous extraction, at a temperature considerably higher than that chosen for the final separation of the extract phase; the agitated mixture is allowed to settle at this higher temperature; and the extract phase is withdrawn and cooled to the same temperature as used in the corresponding direct extraction. The cooled extract is then agitated sufficiently to insure equilibrium between the extract phase and any oil rejected at the lower temperature. After the mixture has settled thoroughly, the extract phase is withdrawn for distillation to recover solvent and the extract cut, and the rejected oil is returned to the raffinate. Theoretically, the final extract obtained in this manner should contain less high-grade oil than the extract obtained in the direct manner at the same final temperature—on account of the fact that the final extract phase obtained in the rejection procedure is not in equilibrium with the raffinate phase remaining from the original stock, but is in equilibrium with the rejected-oil phase which should contain a lower percentage of high-grade components. Adding the rejection feature to the extraction procedure described above obviously increases the time and labor required to complete the solvent fractionation, and it was considered desirable to evaluate the practical advantages of the additional effort. Fortunately, from the standpoint of obtaining useful information by the direct-extraction method, the theoretical advantages of the rejection step were not realized in practice. An analytical extraction, paralleling as closely as possible the experiment shown in Table 1, was performed—except that the additional feature of temperature rejection was employed as indicated. The results of this experiment are shown graphically in Figure 1 as points only, since they fall practically on Curve 1 for the direct-extraction method. Any differences shown are considered not significant, as they are no more than could be caused by experimental error. The foregoing experience with rejection as applied to multiple-batch extraction does not necessarily mean that some form of temperature rejection cannot be used advantageously in continuous counter-current extraction.

To conserve time and expense, less efficient fractionation is often permissible—especially after sufficient experience is obtained to permit an approximate correction for the loss of efficiency in fractionation. Such a fractionation is obtained, for instance, by applying four or five 250-volume-per-cent dumps of Chlorex or aniline at temperatures ranging progressively from 50° to 100° F. for an SAE-20 stock. Such an extraction was performed on the same stock as in the previous experiments, and the data obtained are shown in Table 1. In this case the extracts are contaminated with appreciable amounts of the higher-grade materials, giving a less steep curve displaced to the right when plotted as in Curve 2 of Figure 1.

TABLE 1—ANALYTICAL SOLVENT FRACTIONATION OF PROPANE-DEWAXED SANTA FE SPRINGS SAE-20 DISTILLATE

Normal Method

Sample—	Solvent Chlorex (Vol. %)	Temperature of extraction (°F.)	Recovery (Vol. %)	Gravity	Pour-point (°F.)	Vis. S. U. at 100° F.	Vis. S. U. at 210° F.	V. I.	Viscosity-gravity constant
SAE-20 stock	....	..	....	20.3	0	760	63.5	33	0.874+
Extract 1	250	—6	24.61	6.1	..	....	200	..	0.979
Extract 2	200	5	8.45	10.7	..	....	112	..	0.945
Extract 3	200	12	5.73	15.8	..	....	74.5	..	0.908
Extract 4	200	18	4.14	18.6	..	....	65.5	..	0.888
Extract 5	200	17	4.11	21.1	..	....	61.5	..	0.869
Extract 6	200	23	3.54	22.4	..	....	58.5	..	0.860
Raffinate 6*	....	..	†49.42	30.0	..	307.9	52.4	94	0.807
Extract 7	200	22	3.47	23.9	..	....	57.5	..	0.849
Extract 8	200	41	3.76	25.6	..	....	57.0	..	0.841
Extract 9	200	42	3.40	26.0	..	....	55.5	..	0.824
Extract 10	200	49	4.10	27.3	..	....	55.0	..	0.825
Extract 11	200	50	3.50	28.1	..	....	55.0	..	0.819
Extract 12	200	50	3.35	28.8	..	....	54.0	..	0.814
Extract 13	200	50	3.08	29.4	..	....	55.0	..	0.809
Extract 14	200	50	2.74	30.0	..	....	54.5	..	0.805
Raffinate 14	....	..	{†22.02 {‡19.27	33.6	20	235.1	50.0	113	0.784
Total	2,850								

Short Method

SAE-20 stock	....	..	....	20.3	0	760	63.5	33	0.874+
Extract 1	250	49	35.82	10.9	..	....	110	..	0.944
Extract 2	250	60	14.67	17.8	..	....	66	..	0.894
Extract 3	250	70	10.63	23.7	..	....	58	..	0.858
Extract 4	250	86	11.13	26.4	..	....	56	..	0.831
Extract 5	259	101	12.76	29.5	..	....	54	..	0.809
Raffinate	....	..	{†14.99 {‡14.10	32.4	—5	276	52.3	108	0.790
Total	1,250								

*Raffinate 6 was prepared synthetically at the end of the run by blending extracts 7 to 14, inclusive, with raffinate 14.
†Percentage by difference.
‡Percentage from actual recovery of topped raffinate.

TABLE 2—ANALYTICAL EXTRACTION SCHEDULE FOR FINISHED LUBRICATING OILS

Temperatures for Aniline

Extraction No.—	Vol. % solvent all SAE grades	Extraction temperature (° F.) SAE-10	SAE-20	SAE-30	SAE-40	SAE-50	SAE-60	SAE-70
First	120	100	105	110	115	120	125	135
Subsequent extractions	100	All subsequent extractions at 10° F. higher temperature than preceding extraction.						

Note: For blended oils containing residual stocks, begin fractionation at temperature in table for next lower SAE grade.

Temperatures for Chlorex

Extraction No.—	Vol. % solvent all SAE grades	Extraction temperature (° F.) SAE-10	SAE-20	SAE-30	SAE-40	SAE-50	SAE-60	SAE-70
First	120	40	45	50	55	60	65	70
Subsequent extractions	100	All subsequent extractions at 5° to 10° F. higher temperature than preceding extraction.						

Note: For blended oils containing residual stocks, begin fractionation at temperature in table for next lower SAE grade.

TABLE 3—INSPECTION DATA ON FINISHED MOTOR OILS SHOWN IN FIGURE 2

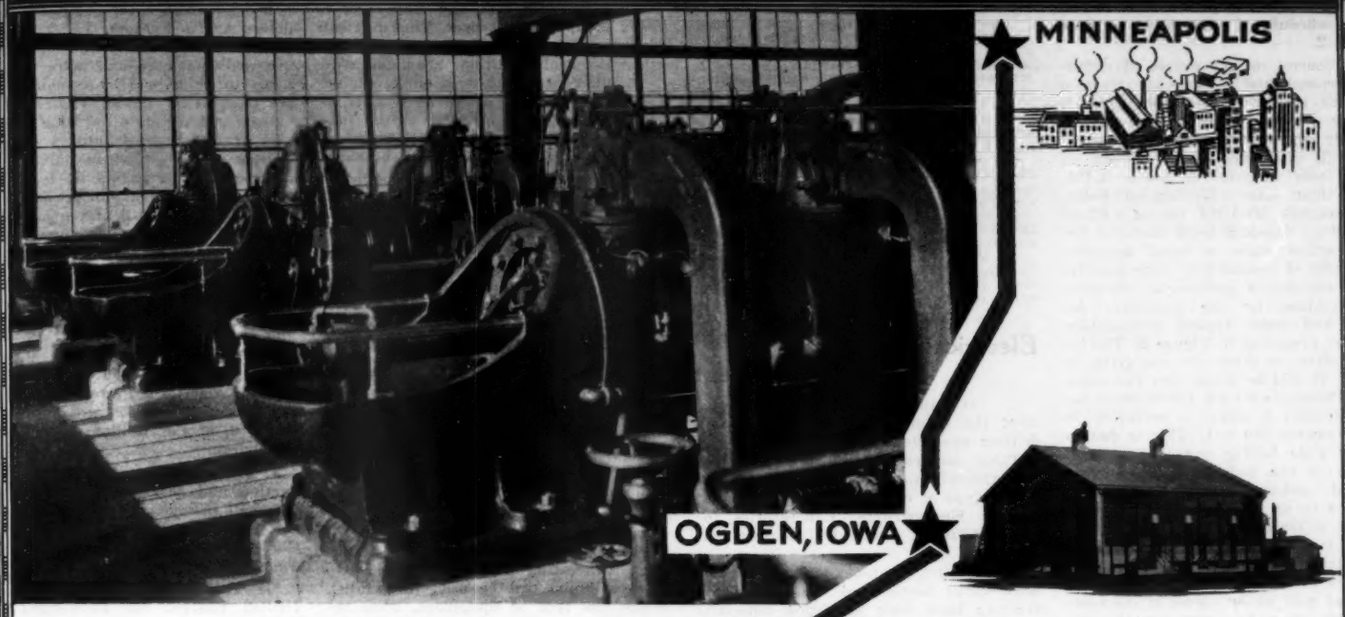
Sample No.	Type—	Grav.	Flash (C.O.C.—°F.)	Fire (C.O.C.—°F.)	Carbon residue (%)	Color (NPA)	Vis. S. U. at 100° F.	Vis. S. U. at 210° F.	V.I.	Viscosity-gravity constant
1	Solvent-treated Calif. dewaxed stock	30.8	500	570	0.01	4	485	64.5	102	0.795
2	Solvent-treated Calif. dewaxed stock	29.1	490	560	0.02	4½	630	70.0	94	0.805
3	Penn. brand "A"	27.7	470	525	0.84	6½	672	74.0	100	0.813
4	Penn. brand "B"	28.6	460	520	0.74	6½	627	73.0	104	0.807
5	Penn. brand "C"	27.2	465	525	0.96	6	621	71.0	100	0.818
6	Solvent-treated Mid-Continent	27.2	495	580	0.03	3	762	73.0	83	0.818
7	Solvent-treated Calif. non-waxy stock	22.2	405	460	0.10	4½	970	68.5	29	0.858
8	Acid-treated Calif. non-waxy stock	18.7	405	460	0.32	8	975	68.0	22	0.886

Analysis of By-Product Oils

The fractionation of by-product extract oils is conducted much the same as with a lubricating stock, except that with extract oils larger solvent ratios and lower temperatures are usually required during the first part of the extractions. As would be expected, it is somewhat more difficult to restrict the concentration of dissolved material in the extract phase; but, by using more solvent at lower temperatures, acceptable results can be obtained. With an extract oil from an untreated SAE-20 lubricating distillate, for example, the extraction should be started with a 450-volume-per-cent dump of Chlorex at a temperature of —15° F. Curve 3 of Figure 1 represents the analysis of a sulphur-dioxide extract from dewaxed SAE-20 distillate.

Analysis of Finished Oils

The analysis of finished motor oils may be for the purpose of determining the amount and character of the lowest-grade components present or to obtain a complete composition curve. Since most finished motor oils, particularly those of higher quality, will show only a small content of low-gravity oil, it is generally permissible to begin the analysis of a finished oil at a temperature in the neighborhood of 100° F. using aniline, or



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Skellytown and Clifton compressor stations were built in 1930 and have had ample opportunity to prove their efficiency and reliability. The highly significant fact is that Northern Natural has again chosen Cooper-Bessemer engines for both the main and auxiliary power in their latest compressor station.

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50° F. using Chlorex. Because of the greater uniformity of finished oils as compared to raw stocks, a routine procedure of analysis is possible. A recommended schedule of extractions is given in Table 2.

As a control on the degree of refinement accomplished in solvent-extraction operations, a brief examination in which only one or two extractions are taken is usually sufficient. Information so obtained will show whether or not an oil is free from material of lower A.P.I. gravity than some specification point, as, for example, 20-A.P.I. for an SAE-30 grade. Such freedom from material below a certain grade is found desirable to give oils of consistently high quality.

Many samples of commercial oils have been examined by the procedure described, and some typical composition curves are presented in Figure 2. The inspection data on these oils are given in Table 3. It will be noted that the curve for the Pennsylvania oil differs from the others, in that it shows a reversion in gravity towards the end. This is due to the very wide boiling range of this oil which is of the residual type. In the analytical solvent fractionation, the separation is, of course, accomplished by means of differences in solubility of the various materials comprising the oil. Since solubility of petroleum fractions is influenced to some extent by molecular weight, as well as by chemical composition, there is a tendency for the accumulation, in the final raffinate or in the later extract fractions, of materials of high molecular weight and viscosity. These fractions in the case of a Pennsylvania residual oil may be of such high molecular weight that they have a lower A.P.I. gravity, even though they may have greater paraffinicity than the fractions immediately preceding them.

The curves in Figure 2 further serve to show the relatively narrow spread of composition of highly refined solvent-extracted oils in comparison with either the eastern oils refined by conventional methods or the western or naphthenic-type oils. This narrow range in composition is reached by the elimination in the solvent-extraction process of all materials of less than a certain degree of parffinicity and by the elimination in the dewaxing process of the most paraffinic hydrocarbons which would give a high pourpoint to the oil.

From the results presented, it is seen that laboratory multiple-batch extraction, when performed in accordance with the procedure described, gives valuable information on the composition of lubricating oils. When used for the analysis of lubricating stocks, the method permits a close estimation of the content of material of any prescribed quality. The successive extracts from a lubricating stock show a progressive change in chemical composition, as indicated by gravity, viscosity-gravity constant, viscosity index, etc., with the gravity usually ranging from less than 10 A.P.I. to better than 30 A.P.I. for stocks of intermediate viscosity. This wide variation in composition is so common that it appears practically all lubricating stocks contain the same components, and that the differences in the over-all properties of the respective stocks are due primarily to differences in the proportions of the components. It seems probable that the fractions having gravities below about 15 A.P.I. are predominantly aromatic in character, while those ranging from about 15 to 20 A.P.I. are essentially naphthenic. As the A.P.I. gravity increases, however, the effect of any naphthenic portions of the hydrocarbon molecule probably becomes less prominent, and the paraffinic characteristics increase. The upper limit of A.P.I. gravity for the so-called paraffinic lubricants corresponds to the point at which these compounds show a sufficiently high melting point to interfere seriously with the pourpoint characteristics of the oil as a whole.

When applied to finished motor oils, the analysis shows the extent to which some components have been eliminated and others concentrated in the refining process. Considerable variation is found in this respect upon analysis of a wide variety of commercial motor oils.

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Electrically Powered Drilling Equipment

(Continued from Page 17)

meet the requirements of the pump in drilling operation.

These motors usually are furnished with the collector rings enclosed in a case of the type of construction recommended by the Underwriters' Laboratories for use in Class 1, Group D hazardous gas locations.

The control equipment for both the draw-works motor and the mud pump motor have been developed especially for the service. Each control equipment

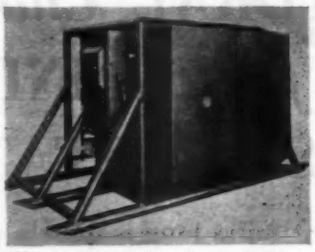

Fig. 9—Control unit for 200 h.p. alternating current draw works motor

is made up as a complete unit, mounted on pipe framework and skids to facilitate moving from one location to another and to make installation easy.

Alternating current equipment is being used on drilling rigs with internal combustion engines. These rigs use one or two engine-generator units to generate alternating current for the A.C. Motors on the draw-works and mud pumps.

With this type of equipment, one generator can furnish energy to both the mud pump motor and the drawworks motor at the same time. Consequently, if the engine-generator unit has enough capacity, only one such unit is required to furnish energy to a drilling rig.

To guard against getting stuck on bottom in case this unit shuts down, an emergency engine-generator set of much smaller capacity than the main unit is being used, in some cases. This unit can also be used during rigging up and also when the load conditions are light.

In other cases, where a single engine-generator is used to furnish energy to the draw-works motor and to the mud pump motor, a separate small engine is arranged so it can be connected by chain to a sprocket on the draw-works motor shaft and thus drive the draw-works in case of emergency. This would permit coming out of the hole, slowly, in case the main engine went down.

Several electric rigs using only one main engine generator unit are now in service. A number of wells have been successfully completed with these equipments in Kansas, Oklahoma and Texas. Most of the wells drilled with these equipments have been from 3,000 to 4,200 feet deep. One well was drilled down to about 2,900 feet in 11 days drilling time, using such equipment.

Figures 5 and 6 show the engine-generator unit of one of these rigs on location in Oklahoma.

Operating in Parallel

Where more power is required than a single generating unit can furnish, two of these units can be used in parallel. While this type of equipment, when operating in parallel, will not divide load automatically, as in the case of the two differentially wound direct current drilling generators in parallel, the operator can balance loads by changing governor settings at the engines.

If care is used in selecting governors and engines, the load on the generators, once divided under load conditions should remain fairly equally divided from half load on each machine to full load, which is the important range for equal division of load. Below half load each machine will carry some load and this may be about the same on each machine, but since either alone could carry all the load without trouble under this condition, it is not so important the load devide exactly in half.

While these generators cannot limit the load on the engines automatically, as can the differentially wound D. C. generators, overcurrent relays, properly set, have been used to open the generator oil circuit breakers in case the driller does try to put more load on the engines than they can carry. This means the engines will not be stalled, nor is there any danger of springing or breaking a crank shaft. If the breakers open, it is necessary only to reclose them and go on with the drilling or hoisting operation at a slower rate.

The parallel operation of A.C. generators on a drilling rig is simplified materially by using voltage regulators and proper switchboard equipment, developed for this service. Figure 7 shows a generator control unit in a weather-proof housing furnished for a rig using engine driven A.C. generators.

Drilling contractors and oil companies are realizing more and more the advantages to be gained by combining internal combustion engines with electric generators and motors on drilling rigs. They also realize the advantages of electric drilling equipment where purchased electric power is available. It is to be expected, therefore, that in the future, electrical equipment will play a more important part in drilling operations than ever before.

Fig. 10—150 h.p., 900 r.p.m., 440-volt alternating current motors driving mud pumps on a rotary rig using purchased power

Program for Pittsburgh A.P.I. Division Session

PITTSBURGH, Pa., May 27.—The annual meeting of the Eastern District of the American Petroleum Institute's Division of Production will be held June 5 and 6, at the William Penn Hotel in Pittsburgh.

J. H. Newlon, superintendent of production and geologist of Equitable Gas Co., will preside. Dr. J. French Robinson, vice president of Peoples Natural Gas Co., will present the address of welcome.

"Is There Any Future for the New-Drilled Eastern Oil Production Under Natural or Standard Producing Methods?" is to be discussed on June 5 by P. H. Curry, president of South Penn Oil Co., and commented upon by L. L. Tonkin, vice president of Hope Natural Gas Co.; A. E. Faine, Ohio Grade Crude Oil Association; J. E. Moorhead, executive secretary of the Pennsylvania Grade Crude Oil Association, and Don Wilson, Columbia Gas & Electric Co.

A symposium on details of oil and gas recovery by artificial means and the practical factors determining the possibility of applying artificial recovery methods to oil or gas properties will be presented by H. R. Pierce, consulting engineer. Discussion will be led by Dr. A. W. Gauger, director; Dr. G. L. Hassler and Dr. Samuel Yuster, all of the school of mineral industries, Pennsylvania State College; Cornell Pfohl, Kendall Refining Co.; C. C. Hogg, vice president of National Petroleum Co.; Clarington Streeter, Bradford producer; H. H. Phillips, of T. W. Phillips Gas & Oil Co.; J. Bird, of Hanley & Bird Co.; H. J. Little, of South Penn Oil Co.; Dr. H. C. George, oil and gas department, University of Pittsburgh; Dr. Charles R. Fettke, geology department of Carnegie Institute of Technology.

R. A. Cattell, chief technologist of the petroleum division, U. S. Bureau of Mines; Ralph Zook, president of the Sloan & Zook companies; Forest Dorn, president of Forest Oil Co.; Wilson K. Page, president of Olean Petroleum Corp.; Jack Gaddess, geologist, Allegheny Gas Co.; Paul D. Torrey, consulting geologist; Prof. C. A. Bonine, petroleum and natural gas research department at Pennsylvania State College.

On June 6, J. C. Askam, of Ohio Oil Co., will present a paper on the "Latest Methods of Pumping Oil, Including Equipment," and discussions will be by W. L. McCloy, vice president of Ohio Fuel Co.; C. B. Turner, vice president of South Penn Oil Co.; W. J. Brundred, president of Brundred Oil Corp.; W. F. Clinger, of Clinger Oil & Gas Co.; Kenneth B. Barnes, of Pennsylvania State College.

The afternoon sessions, with L. L. Tonkin presiding, will be opened by a paper on "Latest Methods of Plugging Off Permeable Lenses of Saturated Or Barren Sands in Water Flooding, Gas Repressuring, Gas Storage Reservoirs, Including the Possibilities of Permanent Plugging of Abandoned Oil and Gas Wells," by C. P. Parsons, of Halliburton Oil & Gas Cementing Co. Discussions will be by J. G. Montgomery, Jr., operating manager and geologist of United Natural Gas Co.; Frank E. Eckert, of Hanley & Bird; S. W. Meals, president of Carnegie Natural Gas Co.

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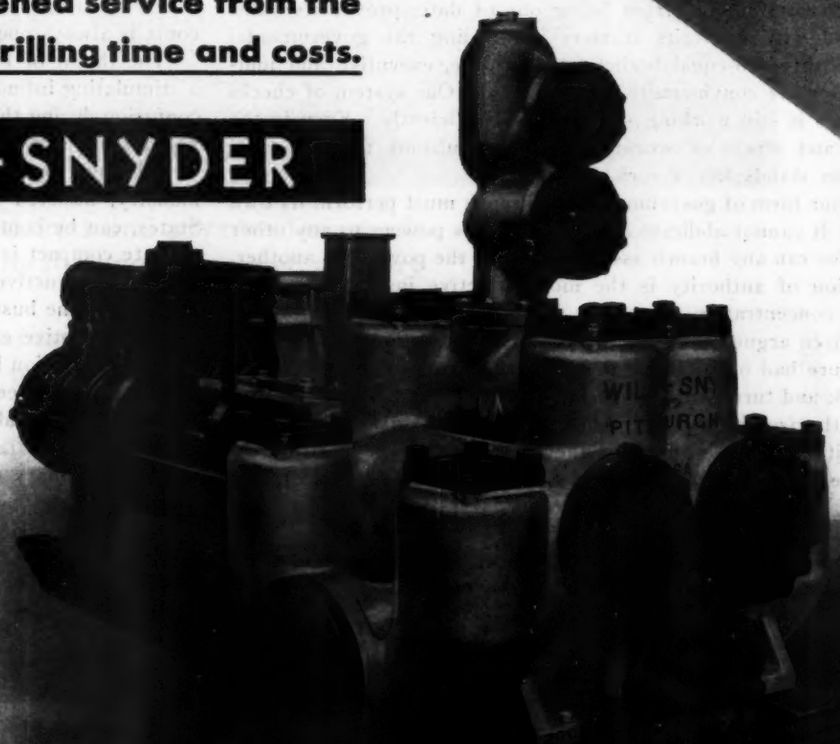

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Out of the Fog

The wiping out of the N.R.A. codes by a unanimous decision of the Supreme Court clears the air. Industry and business can again breathe freely.

The Constitution, far from being out of date, proves its value anew. The wisdom of its framers in dividing the governmental power into three co-equal branches, legislative, executive and judicial, is once more convincingly demonstrated. Our system of checks and balances is still working smoothly and efficiently. Even in the confusion and stress of world shaking convulsions the American Constitution stands like a rock.

Under our form of government each branch must perform its own functions. It cannot abdicate and surrender its powers to any other branch. Nor can any branch assume or usurp the powers of another. This division of authority is the most effective insurance against dangerous concentration of power.

It has been argued that the N.R.A. was constitutional because all the procedure had been observed. It is true that Congress signed a blank check and turned it over to the executive but the Constitution did not authorize the legislative branch to sign blank checks or to surrender its legislative power. Otherwise the division of authority would have been a farce and there could be no check against dictatorship.

So long as we stand by the American Constitution and we have the Supreme Court to maintain the separate powers of the three branches of the government we shall have no dictatorship in the United States.

That is the big principle involved in this decision. But there are others. There are the constitutional rights and privileges of the individual. These may be as completely denied and destroyed by the domination of a bureaucracy as under the heel of a dictator.

That was the real danger under the N.R.A. and its codes. Congress having failed to provide any guarantee for the constitutional rights of the citizen his property and his person were subjected to the discretion of functionaries who attempted to usurp both legislative and judicial powers.

Realizing they had no warrant in law for their actions they resorted to threats and bluffing in the hope of cowing resistance. Regulations and pronunciamentos cited the authority of an act which they feared to submit to the test of the Supreme Court until it could no longer be postponed.

The original assumption that the codes would represent self-government in industry was quickly dispelled as administrative bureaucrats took charge, issuing their own interpretations with all the finality of a court of last resort.

Although proclaimed as codes of fair competition increasing complaint has testified to their complete failure to eliminate abuses or to protect legitimate business. Their main effect has been to add burdens to business and industry without any compensating benefit.

The reply to every criticism has been the familiar plea of bureaucracy for more power. The failure of the petroleum administration was followed by demand for greater Federal control and if that proved insufficient for classification of the industry as a public utility.

The unanimous decision of the Supreme Court should end that foolishness. Every pretense upon which the petroleum administration has relied to press its demand for greater control of the industry is riddled by the decision.

The Supreme Court expressly warns against attempted extension of Federal authority that "would embrace practically all the activities of the people . . . all the processes of production and distribution could likewise be controlled."

It was rapidly moving towards that in the program outlined for the oil industry. The Thomas bill, as desired by the petroleum administration, would have elbowed management aside and put the industry under the direction of a board chosen because it had no interest in the oil business.

Instead of "fair competition" we should have had official allocations which would have prevented any competition and eventually rationing of gasoline to the motorist at the filling station at a price inflated by the inexperience and inefficiency of bureaucratic management.

The Supreme Court has saved the industry and the public from that fate. Oil men, in common with all others, retain unimpaired every constitutional right they possessed before the N.R.A. The court is always open to protect them.

The threat of Federal control is ended. That in itself should be a stimulating influence although for the moment there may be some confusion during the process of readjustment. Since the code brought no advantages its elimination can cause no disadvantages.

Whatever has been accomplished by the voluntary efforts of the industry, assisted by the regulatory bodies in the oil producing States, can be continued. Prompt approval by Congress of the interstate compact is desirable.

The constructive forces in the industry can continue their labors to stabilize the business. Nothing in the decision affects their purpose. Disruptive elements may seek to take advantage of the momentary confusion but they have been doing that all the time.

The decision reestablishes control of industry where it belongs. All the sophistry about emergency legislation is brushed aside into the dustbin.

"Extraordinary conditions may call for extraordinary remedies" says the court, "but the argument stops short of attempting to defend action outside of constitutional authority. Extraordinary conditions do not create constitutional power."

To think or act otherwise is to make the fundamental law the plaything of circumstances, to abandon our conception of "a new government of law, not of men" and submit our fate to the mob spirit of the moment.

The chaos abroad has been due, not to the overthrow of thrones, but to the overthrow of constitutions. When a people surrenders its charter of liberties it becomes an easy prey.

Today the American people have a fresh understanding of the value of their Constitution, of its present day applicability to the needs of the hour, and of the vital importance of the Supreme Court in our governmental structure.

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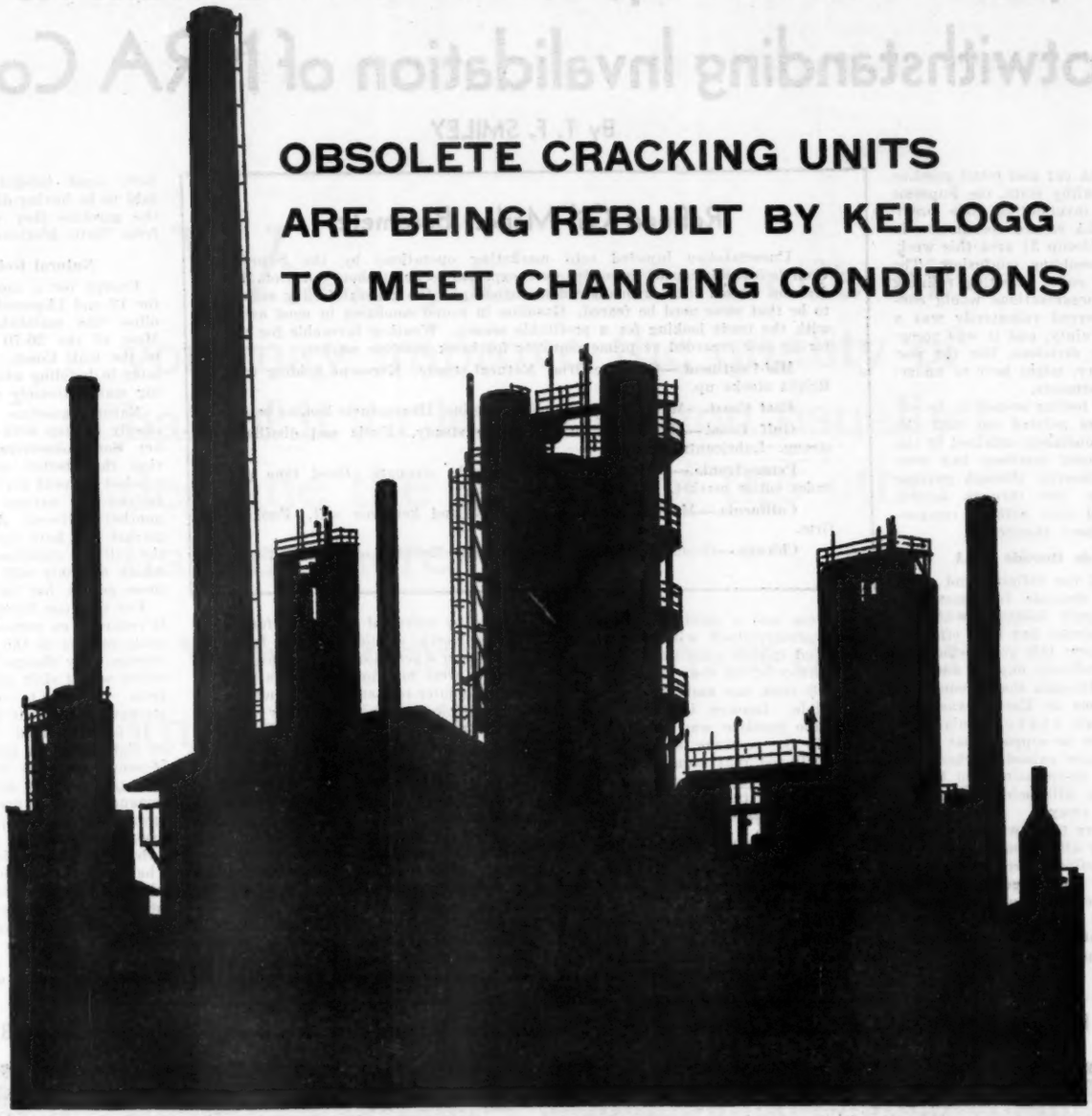

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Group 3 Market Expected to Maintain Its Stride Notwithstanding Invalidation of NRA Codes

By T. F. SMILEY

With both tank car and retail gasoline markets in a healthy state, the Supreme Court decision invalidating code provisions of the NRA caused speculation in the Oklahoma (Group 3) area this week, but nothing resembling confusion. The extent to which codes affecting refining and marketing organizations would continue to be observed voluntarily was a matter of uncertainty, and it was recognized that these divisions, like the rest of the oil industry, might have to undergo minor readjustments.

In general the feeling seemed to be one of relief. It was pointed out that the more favorable conditions attained in the whole Mid-Continent territory had been achieved, not primarily through governmental measures, but through understandings entered into without compulsion by the refiners themselves.

Gains Made Outside NRA

The welfare of the refining and marketing divisions depends fundamentally upon keeping supply balanced with demand. Such a balance has been effected in the Mid-Continent this year principally through inter-refinery buying, adopted voluntarily, and through sharp reduction of illicit operations in East Texas, accomplished through state regulations. There is no reason to suppose that business men who have gained marked advantages through co-operation and building for the future will suddenly go loco and throw them away.

A possible danger to be watched is the matter of refinery allocations. It is recognized that if refiners here and there, seeking personal advantage, begin increasing refinery runs to such an extent that inter-refinery buying would become impotent, the familiar train of evils resulting from overproduction might come to life again. It is believed that common sense and a spirit of co-operation in the industry itself will avert a return of the old chaotic conditions.

The effect of the court decision on the Group 3 tank car market was scarcely perceptible. Inquiry indicated that no low-octane gasoline was obtainable anywhere in the territory below 4⅝ cents, with likelihood that even that quotation would be supplanted by a low of 4¾ before the end of the week. No weakening of the retail market was observable.

Looking to the Weather Man

Group 3 refiners and marketers, as a matter of fact, were looking hopefully to the weather man this week for the fillip needed to set a lively gasoline market in motion. A few sunshiny days, they said, would impart fresh vigor, and along with the Memorial Day holiday, generally attended by universal use of the family car in the North, should mark the beginning of the year's period of heavy consumption.

If it were not for the results achieved through inter-refinery buying and the unremitting campaign against law violators in East Texas, it is pretty safe to say that the succession of unhappy traveling conditions accompanying the spring of 1935 would have made the present sturdy gasoline market impossible. Dust storms, rain, snow, floods and prolonged cold weather have conspired to prevent normal consumption of motor fuel. Notwithstanding discouragements the market has gained ground steadily, and anything remotely resembling a break would probably send it romping to still higher levels.

No surplus accumulations of serious dimensions were apparent anywhere in the Mid-Continent area. As a matter of fact, some integrated companies were said to be having difficulty in getting all the gasoline they would like to obtain from "little brothers."

Natural Going to Storage

Except for a moderate letting up in the 12 and 14-pound grades, natural gasoline was maintaining its brisk pace. Most of the 26-70 material was going to the Gulf Coast, to be stored for use later in building winter fuel. Jobber buying was extremely contracted.

Natural gasoline is expected to keep closely in step with the motor fuel market. Some observers venture the prediction that before refinery gasoline has reached its peak for the 1935 season quotations for natural will have annexed another half-cent. A strong motor fuel market will have the effect of increasing the call for stabilized grades of natural, which not only will stiffen the price for those grades, but for that of the 26-70.

For the time being the price for 26-70 is regarded as pegged pretty firmly at 3 cents so long as the material is going to storage. Any change in market conditions which would shift part of the movement from storage to current use would strengthen the spot market.

It is understood that the shading of an eighth cent in quotations for 12 and 14-pound material involved only a few cars and that any substantial rise in the demand for these grades would effect an upward revision of prices through quick absorption of all the available supply.

Bright stocks, lagging for months, added a half cent throughout the list. The other lubricant groups were reported in fairly satisfactory condition. Kerosene was steady, with prices unchanged. The higher-gravity distillates were firm, with prices up. The best that could be said for wax was that it was no weaker.

Refined Oil Market Barometer

Uncertainties injected into marketing operations by the Supreme Court's invalidation of the codes were expected to be of short duration. The decision caused little immediate disturbance and the general feeling seemed to be that none need be feared. Gasoline in sound condition in most areas, with the trade looking for a profitable season. Weather favorable for motoring now regarded as prime requisite for brisk gasoline market.

Mid-Continent.—Gasoline firm. Natural steady. Kerosene holding well. Bright stocks up.

East Coast.—More cheerful tone in gasoline. Heavy fuels looking better.

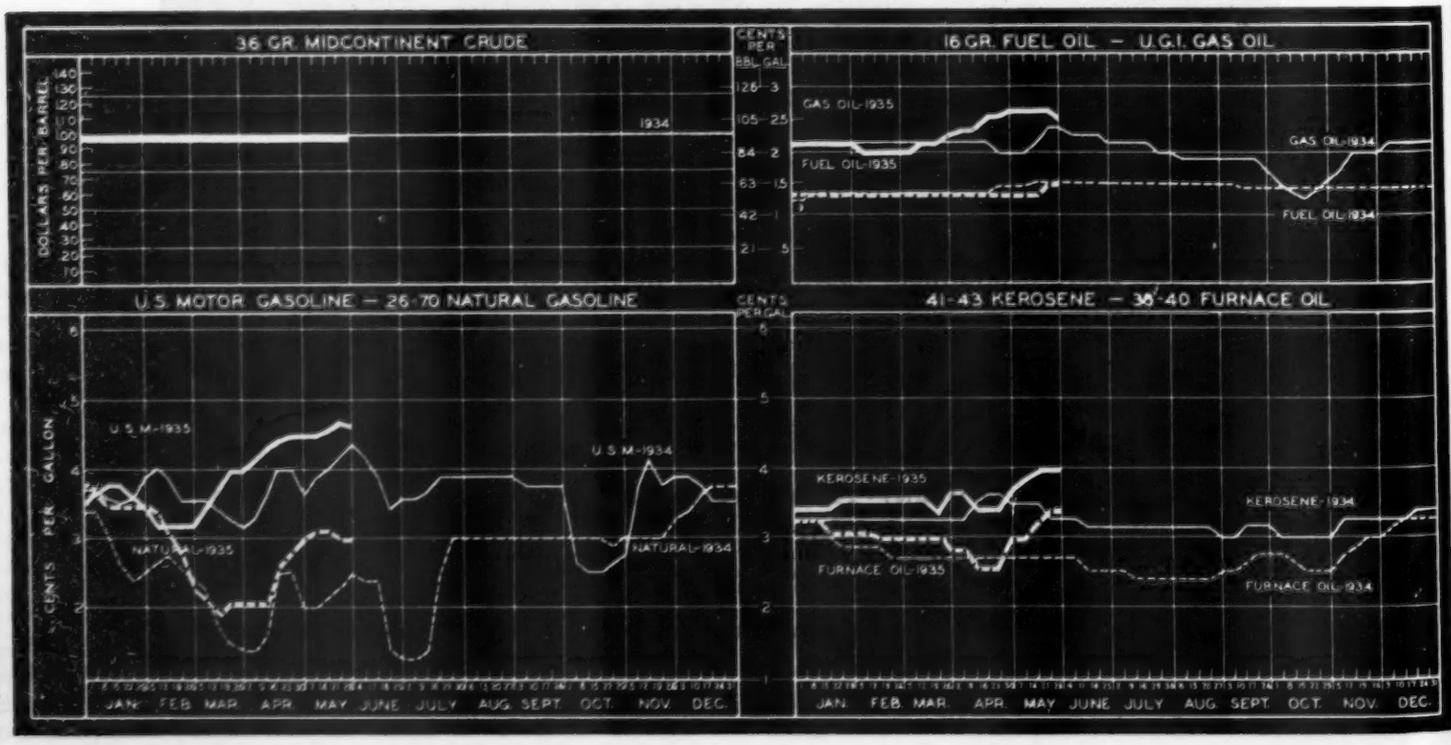
Gulf Coast.—Gasoline firm. Kerosene steady. Fuels and distillates strong. Lubricants steady.

Pennsylvania.—Bright and cylinder stocks stronger. Good tone pervades entire market.

California.—Market irregular. Gasoline and kerosene soft. Fuel oil firm.

Chicago.—Gasoline strong and in demand. Burning oils mostly firm.

Representative Mid-Continent Quotations on Crude Oil and Refined Products Basis Oklahoma (Group 3)



When you skim crude oil you may improve the quality of half of it (or less) but you usually degrade the quality of the other half (or more)

When you Dubbscrack oil you improve it all

You get a high yield of super-quality gasoline that brings the price

And Dubbscracked fuel oil or coke is worth more than the oil you started with

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Refined Oil Price Stabilization on Eastern Coast Easier After Retailers' Expensive Lesson

By C. O. WILLSON
New York Bureau, The Oil and Gas Journal

NEW YORK, May 28.—Price changes in eastern refinery markets over the past week were local in scope, with exception of the continued upward trend in steam refined and bright stock quotations. Reports from the Atlantic Seaboard states extending from Maine to the Carolinas show that major distributors are endeavoring to correct local price conditions where they are below normal applying to gasolines, kerosene and all grades of fuels. The efforts have not been successful in all cases and reductions rather than advances have been made effective at a few points.

Those in direct touch with wholesale and retail marketing conditions in several instances have commented on the fact that both large and small factors seem more disposed to co-operate in stabilizing prices at profitable levels than any time in the past two or three years. Those who are still skeptical as to the permanence of recent advances in gasolines appear willing to give them a trial and there have been few complaints of "chiseling" in recent weeks. This is explained as a reaction to the unsatisfactory marketing conditions of the last quarter of 1934 and first quarter of 1935 which has caused some concerns to place more emphasis on profitable prices rather than unprofitable volume.

In the case of gasoline, developments at the Gulf Coast were encouraging to tank car sellers in this territory. A cargo of 65 octane U. S. Motor gasoline brought 5½ cents at the Gulf for coastwise movement, a Gulf refiner being the seller and a major eastern distributor operating several refineries in United States, the buyer. The price was one-fourth cent above recent quotations. It is understood that one or more cargoes will be placed this week at the same figure.

Export Gasolines Higher

The export gasoline market at the Gulf is also pointing upward. The situation has been somewhat incongruous in that export prices were approximately three-fourths cent per gallon under the coastwise market. June business for 64-66 375 endpoint material early in May was placed under 5 cents at the Gulf at a time when 65 octane U. S. Motor was bringing 5¼ cents for delivery to East Coast terminals. A differential between domestic and export prices at the Gulf is not an unusual condition the two prices being determined by conditions which are not always similar. Companies selling at the Gulf for export movement must compete with sellers coming from practically all the large producing or refining countries outside the United States and this market over the past three years has usually been below the domestic market. There were times, however, when the domestic price was below the export quotations. In the case of gasoline, it has been customary over the past two years to look to the Rumanian sellers quoting for European delivery in determining the going market at the Gulf. Rumanian sellers have been advancing their prices. The latter part of last week, taking into consideration rates of exchange the Rumanian quotations for delivery at most European points was the equivalent to 6½ to 6¾ cents basis the Gulf. It is now felt that unless American sellers continue to try to undersell each other present prices at the Gulf can be advanced one-half or more cents on all export grades. The amount of spot export business at the Gulf is small regardless of the price, but those in a position to know claim that the position of the American sellers would not be jeopardized with fractional cent advances at this time and the increases would be a substantial aid to concerns with long-time contracts based on Gulf Coast quotations.

Residual Fuel Oils

There is considerable discussion in the trade as to the position of residual fuel oils. In this market these fuels have continued strong in the face of weakness and price declines in the lighter fuels commonly classified as furnace oils and Diesel oils.

Over the past week there have been predictions of advances in the Bunker grades and heavy industrial fuels. Bunker C fuel oil has been selling at $1.15 per barrel since October 1, 1934. Yearly contracts have been made on that basis since the first of the year. Recently it is said that at least one large company has inserted a $1.30 top in its new contracts with the marine trade with the prediction that the spot price in New York Harbor will be that figure in the near future. The spot price was $1.30 from March 21 to October 1 last year.

The statistical situation in the case of residual fuel oils is somewhat confusing. Stocks of these fuels are substantially higher here and at the Gulf than they were a year or 18 months ago but they have declined in other areas, notably California. This situation is apparent from the following table which gives stocks of residual oils by refining areas as of March 31, 1935, and August 31, 1934 (data in barrels):

	March 31, 1935	August 31, 1934
East Coast	6,121,000	4,624,000
Appalachian	355,000	232,000
Ind., Ill., Kentucky	2,632,000	2,406,000
Okla., Kans., Mo.	2,244,000	2,930,000
Texas Inland	972,000	2,508,000
Texas Gulf	6,338,000	3,905,000
Louisiana Gulf	2,844,000	1,086,000
Ark. and La. Inland	643,000	526,000
Rocky Mountain	465,000	476,000
California	59,714,000	95,273,000
Total	83,328,000	113,966,000

This table shows that over a 19-month period which has witnessed a steady decline in inventories of residual fuel oil at refineries, stocks along the Gulf Coast and Atlantic Seaboard have increased. The decreases have been in the Mid-Continent with a decline of 35,559,000 bbls. in California. The latter state for years has had the bulk of the fuel oil stocks in this country. This was due originally to the low gravity crudes, the long distance from eastern markets and the lack of cracking facilities. There was the additional fact that in recent years the expansion in natural gas facilities tended to reduce the market outlets.

Over the past 18 months there has been a strong demand for the heavy fuels from West Coast refiners. The percentage of these fuels obtained in refining has decreased with the lighter crudes—notably the high gravity crude of Kettleman Hills—and the expansion in cracking facilities. Japan has been a heavy buyer over the past year for its navy. Last year the Standard of New Jersey also bought 10,000,000 bbls. of West Coast fuels and brought the supplies around to the East Coast to supplement the material available at its own domestic refineries. This large purchase probably accounts for the fact that supplies have been adequate along the East Coast and Gulf Coast with some addition to stocks last year.

It is now said that the market is again tightening here and at the Gulf. Prices have advanced in California in the face of the steady withdrawal from stocks to supply domestic and export requirements there. These advances, coupled with higher tanker rates, mean that eastern buyers can no longer look to the West for supplementary supplies. It is pointed out that California bunker fuel could not be delivered at New York under $1.30 per barrel with quotations ranging as high as $1.40. Previous to the import tax becoming effective in June, 1932, eastern markets could look to Venezuela and Mexico for large supplies of fuel oils. The import tax on these fuels is now 21 cents per barrel and relatively little is imported for domestic consumption.

Observors believe this situation means a gradual tightening in the heavy fuel market in this territory provided refinery operations are maintained at their present levels. It is also pointed out that this situation has developed despite an industrial demand which is substantially below the peak. Any sustained revival in general industries along the coast would make this limited supply more apparent. There is of course a check on fuel oil prices in coal and other fuel substitutes, but the price recovery in this fraction of crude oil is a favorable development pointing to better prices in all closely related refinery products.

Prices

Prices on U. S. Motor gasoline in New York (Bayonne) Harbor range from 5¾ cents for low octane to 6½ cents for ethylized regular grade in tank car shipments. Some companies allow one-fourth cent discount for small barge shipments. Kerosene is steady at 5 cents and furnace oils range from 3¾ to 4 cents for No. 4 to 4¾ to 5 cents for No. 1. Sellers are now engaged in making contracts with distributors and consumers with business said to be running ahead of last year at this time.

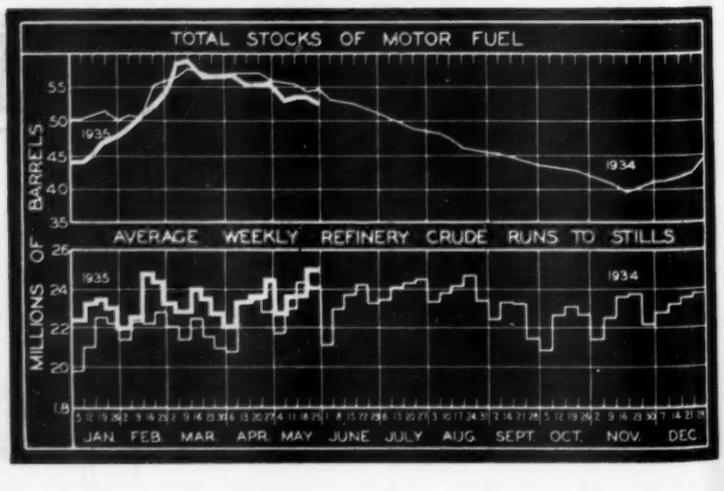
Diesel fuel oil to the marine trade is $1.89 per barrel and 4½ and 4¾ cents per gallon to the shore buyers. Reflecting the increased use of Diesel power, Diesel oil sales are showing a steady increase in this section.

Manufacturers of steam refined stocks and bright stocks afe maintaining the price advances made effective last week. There were no important price changes during the week in wax.

American Petroleum Institute Weekly Refinery Statistics

Week Ending May 25, 1935

	Capacity reporting per cent	Daily crude runs (bbls.)	Finished motor fuel (bbls.)	Gas oil and fuel oil (bbls.)
East Coast	100.0	506,000	16,389,000	9,458,000
Appalachian	94.8	109,000	2,073,000	664,000
Indiana, Illinois, Kentucky	95.9	319,000	9,382,000	4,302,000
Oklahoma, Kansas, Missouri	84.8	257,000	5,476,000	4,048,000
Inland Texas	48.5	94,000	1,331,000	1,865,000
Texas Gulf	96.4	510,000	6,041,000	9,060,000
Louisiana Gulf	96.4	119,000	1,345,000	3,381,000
North Louisiana and Arkansas	90.0	53,000	264,000	277,000
Rocky Mountain	61.9	44,000	987,000	772,000
California	92.6	526,000	9,930,000	63,830,000
Total United States	89.5	2,537,000	53,227,000	97,657,000



REFINERY AND CRUDE PRICES

Quotations on refined products are for interstate or export movement except as otherwise noted

The following quotations are exclusive of the federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils.

Refinery Gasoline

	May 28		May 21	
OKLAHOMA (Group 3)—				
U. S. Motor grades:				
Below 63 octane	.04⅝	.04¾	.04¾	.04⅞
63-70 octane	.05½	.05⅝	.05⅝	.05½
60-62 400 grade:				
Below 63 octane	.04¾	.04⅞	.04¾	.04⅞
63-70 octane	.05½	.05⅝	.05⅝	.05½
64-66 375	.04¾	.04⅞	.04¾	.04⅞
68-70 360	.04⅞	.05	.04⅞	.05
NORTH TEXAS—				
U. S. Motor grades:				
Below 63 octane	.04¾		.04¾	.04⅞
63-70 octane	.05⅝	.05⅝	.05⅝	.05½
60-62 400	.04⅝	.04¾	.04⅝	.04¾
64-66 375	.04¾	.04⅞	.04¾	.04⅞
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
U. S. Motor grades:				
Below 63 octane	.05¼		.05¼	
63-70 octane	.06		.06	
60-62 400	.05¼		.05¼	
ARKANSAS (Ark., N. La. & Miss. del.)—				
U. S. Motor grades:				
Below 63 octane	.05¼		.05¼	
63-70 octane	.06		.06	
CHICAGO (based on Oklahoma Group 3)—				
U. S. Motor grades:				
Below 63 octane	.04⅝	.04¾	.04⅝	.04¾
63-70 octane	.05½	.05⅝	.05⅝	.05½
60-62 400	.04⅝	.04¾	.04⅝	.04¾
64-66 375	.04¾	.05	.04¾	.04⅞
68-70 360	.04⅞	.05	.04⅞	.05
Aviation fighting grade	.05⅝	.05¾	.05½	.05¾
PENNSYLVANIA (inland refineries)—				
58-60 U. S. Motor:				
Below 60 octane	.05½		.05¾	.05½
60-64.9	.06¾		.06¾	
65-70 octane	.07		.07	
68-70 350	.06½		.05⅝	.06
CALIFORNIA (domestic movement)—				
54-58 U. S. Motor	.07	.08	.07	.08
58-60 400	.07¾	.08¾	.07¾	.08¾
EAST COAST—				
U. S. Motor, below 60 octane:				
*New York (Bayonne)	.05¾		.05¾	
Baltimore	.05¾		.05¾	
U. S. Motor, 60-64.9 octane:				
*New York (Bayonne)	.06		.06	
Philadelphia	.06¼		.06¼	
Boston	.06		.06	
Baltimore	.06	.06¼	.06	.06¼
Charleston, S. C.	.06		.06	
U. S. Motor, 65 and above:				
*New York (Bayonne)	.06¼		.06¼	
Philadelphia	.06½		.06½	
Boston	.06¼		.06¼	
Baltimore	.06¼		.06¼	
Charleston, S. C.	.06¼		.06¼	

*All grades of gasoline one-fourth cent less for small barge shipments.

GULF COAST (domestic)—				
U. S. Motor:				
Below 60 octane	.05¼		.05¼	
60-64.9 octane	.05¼	.05½	.05¼	.05½
65 octane and higher	.05½		.05½	

Naphtha

	May 28		May 21	
PENNSYLVANIA (inland refineries)—				
50-52 (blending)	.05⅝	.05½	.05¼	.05⅜
52-54 450 (blending)	.05⅝	.05½	.05¼	.05⅜
54-56 450 (blending)	.05⅝	.05½	.05¼	.05⅜
50-52 450 (blending)	.05⅝	.05½	.05¼	.05⅜
CHICAGO (based on Oklahoma Group 3)—				
50-52 450 (blending)	.04⅝	.04¾	.04⅝	.04¾
Cleaners' naphtha, 56-58 gr., 200 i.b.p., 320 e.p.	.06⅞	.07	.06¾	.07
Lacquer diluent, 180 i.b.p., 250 e.p.	.07⅞	.08	.07¾	.08
Lacquer diluent, 140 i.b.p., 200 e.p.	.08⅞	.09	.08¾	.09
Rubber solvent, 68-70 gr., 100 i.b.p., 300 e.p.	.06⅞	.07	.06¾	.07
Stoddard solvent, 300 i.b.p., 410 e.p., over 83° flash	.06⅝	.06½	.06¼	.06½
Pet. thinner, 290-300 i.b.p., 410 e.p., over 83° flash	.06⅝	.06½	.06¼	.06½
V.M.&P. naphtha, 56-58 gr., 190-200 i.b.p., 330 e.p.	.06⅞	.07	.06¾	.07
Petroleum spirits	.05⅞	.06	.05¾	.06

Natural Gasoline

	May 28		May 21	
OKLAHOMA (Group 3)—				
Grade 26-70	.03	.03⅛	.03	.03⅛
Grade 18-55	.03¾	.04	.03¾	.04
Low vapor pressure grades:				
14 lb. v.p. (max.)	.04¼	.04½	.04⅜	.04½
12 lb. v.p. (max.)	.04⅝	.04¾	.04¾	
NORTH TEXAS—				
Grade 26-70	.03		.03	
Grade 18-55	.03¾	.03⅞	.03¾	.03⅞
Low vapor pressure grades:				
*14 lb. v.p. (max.)	.04¼	.04⅜	.04¼	.04⅜
*12 lb. v.p. (max.)	.04⅝		.04⅞	

*Nominal.

NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
Grade 26-70	.03¼		.03¼	
CALIFORNIA—				
75-85 375	.05½	.06¼	.05½	.06¼

Kerosene

(All kerosenes water white)

	May 28		May 21	
OKLAHOMA (Group 3)—				
41-43	.04	.04⅛	.04	.04⅛
42-44	.04⅛	.04¼	.04⅛	.04¼
NORTH TEXAS—				
40-41	.03¾	.03⅞	.03¾	.03⅞
41-43	.03⅞	.04	.03⅞	.04
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
41-43	.04⅛		.03¾	.03⅞
ARKANSAS (Ark., N. La. & Miss. del.)—				
41-43	.04¼		.03⅞	
PENNSYLVANIA (inland refineries)—				
45	.04¾		.04¾	
46	.04⅞		.04⅞	
47	.05		.05	
CHICAGO (based on Oklahoma Group 3)—				
41-43	.04	.04⅛	.04	.04⅛
42-44	.04¼	.04⅜	.04¼	.04⅜
CALIFORNIA (Pacific Coast consumption)—				
38-40 high burning test	.04½	.05½	.04½	.05½
NEW YORK (Bayonne, N. J.)—				
41-43	.05		.05	
GULF COAST (domestic)—				
41-43	.04¼	.04½	.04¼	.04½

Petroleum Coke

(Prices per ton f.o.b. refineries in Chicago area)
(Refineries will absorb freight to 80 cents a ton)

	May 28	May 21
Pile run	5.75	5.75
Direct from still	6.75	6.75
Egg, nut, pea	8.00	8.00
Lump	8.00	8.00

Furnace Oil

	May 28		May 21	
OKLAHOMA (Group 3)—				
No. 1 prime white, 38-42	.03½	.03⅝	.03½	.03⅝
No. 1 straw, 38-40	.03⅜	.03⅝	.03⅜	.03½
No. 2 straw, 32-36	.02⅞	.03⅛	.02⅝	.02⅞
No. 2 dark, 32-36	.02⅝	.02⅞		
No. 3, 28-32	.02½	.02⅝		
No. 3, 15 and above, 28-32	.02⅜	.02½		
NORTH TEXAS—				
No. 1 prime white, 38-42	.03½	.03⅝		
No. 1 straw, 38-40	.03⅜	.03½	.03⅜	.03½
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
No. 2, 32-36	.03⅛	.03¼		
ARKANSAS (Ark., N. La. & Miss. del.)—				
No. 2, 32-36	.03½			
No. 3, 28-32	.03¼			
CHICAGO (based on Oklahoma Group 3)—				
No. 1 prime white, 38-40	.03⅝	.03¾	.03⅝	.03¾
No. 1 straw, 38-40	.03½	.03⅝	.03½	.03⅝
No. 2 straw, 32-36	.03⅛	.03¼	.03⅛	.03¼
No. 2 dark, 32-36	.02⅞	.03	.02⅞	.03
No. 3 zero to 15 p.p., 28-32	1.02½	1.07½	1.02½	1.07½
No. 3, 15 p.p. and above, 28-32	.72½	.77½	.72½	.77½
NEW YORK (Bayonne, N. J.)—				
No. 1	.05		.05	
No. 2	.04		.04	
No. 4	.03¾	.04	.03¾	.04

Gas Oil and Fuel Oil

(Gas oil per gal., fuel oil per bbl.)

	May 28		May 21	
OKLAHOMA (Group 3)—				
U.G.I. gas oil	.02½	.02⅝	.02⅝	.02¾
No. 4, 24-28	.87½	.90		
No. 4, 15 and above, 24-28	.75	.80		
No. 5	.70	.75		
No. 6	.67½	.70		
Below 18 fuel oil, industrial	.65	.67½	.65	.70
NORTH TEXAS—				
U.G.I gas oil	.02½	.02⅝	.02½	.02⅝
No. 4, 24-28	.87½	.90		
No. 5	.72½	.75		
No. 6	.67½	.70		
Below 18 fuel oil, industrial	.65	.67½	.65	.70
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
U.G.I. gas oil	.02⅞	.03	.02¾	.02⅞
10-14 fuel oil, industrial	.72½	.77½		
ARKANSAS (Ark., N. La. & Miss. del.)—				
10-14 fuel oil, industrial	.60	.65		
CHICAGO (based on Oklahoma Group 3)—				
U.G.I. gas oil	.02½	.02⅝	.02½	.02⅝
No. 4, 24-28	.87½	.90	.87½	.90
No. 4, 15 p.p. and above, 24-28	.72½	.77½	.72½	.77½
No. 5, 18-22	.67½	.70	.67½	.72½
No. 6, 10-16	.57½	.60	.57½	.60

Note: Fuel oils of more than 40 cold test generally 5 to 15 cents per barrel in all these areas.

PENNSYLVANIA (inland refineries)—				
30-40	.04⅛	.04¼	.04⅛	
CALIFORNIA—				
Los Angeles:				
30-34 gas oil, per bbl.	1.15	1.25	1.15	1.25
27 plus Diesel	1.15	1.25	1.15	1.25
27 plus Diesel (bunkers)	1.25	1.30	1.25	1.30
12-16 (bunkers at tidewater)	.87	.95	.85	.95
10-16 (cargo lots)	.75	.90	.75	.90
12-17 (tank cars)	.65	.95	.65	.95
San Joaquin Valley:				
10-18 (tank cars)	.60	.75	.60	.75
San Francisco:				
27 plus Diesel, per bbl.	1.25		1.25	
27 plus Diesel (bunkers)	1.35		1.35	
10-16 (bunkers)	1.00		1.00	
GULF COAST—				
28-30 gas oil	.03½	.03⅝	.03½	.03⅝
28-30 Diesel (bunkers)	1.70		1.70	
Bunker C (bulk cargoes)	.85	.90	.85	.90
Bunker C (bunkers)	.95	1.00	.95	1.00
NEW YORK (Bayonne, N. J.)—				
27 plus, gas oil	.04	.04¼	.04	.04¼
28-30 Diesel (lighterage 6½ cents per bbl.)	1.89		1.89	
28-30 Diesel (tank cars)	.04¼		.04¼	
*Bunker C (to ocean-going ships in N. Y. harbor)	1.15		1.15	
Industrial fuel (tank cars)	.03¾	.04	.03¾	.04

*Lighterage charge 5 cents per barrel additional.

Neutral Oil

(Vis. at 100° F. except Pennsylvania, and color N.P.A.)

	May 28		May 21	
OKLAHOMA (Group 3)—				
Zero to 10 Cold Test:				
150-3	.10		.10	
180-3	.11¼		.11¼	
180-4	.10¾		.10¾	
200-3	.11¾		.11¾	
200-4	.11¼		.11¼	
240-3	.13¾		.13¾	
240-4	.13¼		.13¼	
280-3	.14¾		.14¾	
280-4	.14		.14	
300-3½	.15¼		.15¼	
400-4	.17¼		.17¼	
100-2 paraffin oil	.05¾		.05¾	
15-20 Cold Test:				
200-3	.10¾		.10¾	
200-4	.10¼		.10¼	
240-3	.12¾		.12¾	
240-4	.12¼		.12¼	
280-3	.13¾		.13¾	
280-4	.13		.13	
GULF COAST—				
Pale Oils:				
200-3	.07	.07½	.07	.07½
300-3	.07½	.08	.07½	.08
500-3½	.08½	.09	.08½	.09
750-3½	.09	.09¼	.09	.09¼
1,200-3½	.09½	.09¾	.09½	.09¾
2,000-4	.09¾	.10	.09¾	.10
Red Oil:				
200-5-6	.07	.07¼	.07	.07¼
300-5-6	.07¼	.07½	.07¼	.07½
500-5-6	.08	.08½	.08	.08½
750	.08½	.09	.08½	.09
1,200-5-6	.09¼	.09½	.09¼	.09½
CALIFORNIA (moving to domestic market)—				
Pale Oils:				
100-2½-3	.07½	.07¾	.07½	.07¾
200-2½-3	.08	.08¾	.08	.08¾
300-3-3½	.09	.10	.09	.10
350-3-4	.10½	.11	.10½	.11
400-3-4	.12	.12¼	.12	.12¼
450-3-4	.12½	.12¾	.12½	.12¾
550-3-4	.13	.13½	.13	.13½
600-3-4	.13½	.14	.13½	.14
Red Oils:				
200-4-5	.08½	.09	.08½	.09
300-5-6	.09		.09	
350-5-6	.10	.10¼	.10	.10¼

400-5-6	.10½	.10¾	.10½	.10¾
450-5-6	.11	.11¼	.11	.11¼
500-5-6	.11½	.11¾	.11½	.11¾
600-5-6½	.12	.12¾	.12	.12¾
700-6½ plus	.13	.13¼	.13	.13¼
750-6½ plus	.13½	.13¾	.13½	.13¾
900-6½ plus	.14	.14½	.14	.14½
PENNSYLVANIA—				
150 vis. at 70° F., 3 color, 400-405 flash:				
Zero pour test	.20½	.21	.20½	.21
10 pour test	.19½	.20	.19½	.20
15 pour test	.19	.19½	.19	.19½
25 pour test	.18	.18½	.18	.18½
180 vis. at 70° F., 3 color:				
20 pour test	.21	.21½	.21	.21½
200 vis. at 70° F., 3 color:				
Zero pour test	.25½	.26	.25½	.26
10 pour test	.24½	.25	.24½	.25
15 pour test	.24	.24½	.24	.24½
25 pour test	.23	.23½	.23	.23½

Bright and Steam Refined Stocks

OKLAHOMA (Group 3)—	May 28		May 21	
Bright Stocks:				
190-200 D	.17½		.17	
150-160 D, 0-10	.14½		.14	
150-160 D, 10-25	.14		.13½	
150-160 25-40	.13½		.13	
150-160 E	.13½		.13	
Steam refined:				
630 green (treated)	.08½	.09½	.08½	.09½
600 light green (untreated)	.07	.08	.07	.08
600 dark green (untreated)	.05	.06	.05	.06
PENNSYLVANIA—				
Bright Stocks (Pennsylvania grade, No. 8 color, 145-50 at 510; 540-550 flash):				
10 pour test	.20	.20½	.19	.19½
15 pour test	.19	.19½	.18	.18½
20 pour test	.18	.18½	.17	.17½
25 pour test	.17	.17½	.16	.16½
Steam refined:				
600	.09¼	.09½	.09	.09½
650	.11	.11½	.11	.11½
600 Pennsylvania flash	.12	.12½	.12	.12½
630 flash	.17	.17½	.17	.17½
600 Warren E filtered	.13	.13½	.13	.13½

Wax and Petrolatum

(Prices per pound)

OKLAHOMA (Group 3)—	May 28		May 21	
124-126 white crude scale	.02	.02¼	.02	.02¼
PENNSYLVANIA (inland refineries)—				
122-124	.0210	.0215	.0210	.0215
124-126	.0215	.0220	.0215	.0220
NEW YORK—				
Wax (a.m.p.) in bags fully refined:				
Refined grades:				
123-125	.0380		.0380	
125-127	.0400		.0400	
128-130	.0425		.0425	
130-132	.0440		.0440	
133-135	.0500		.0500	
135-137	.0525		.0525	
Crude scale:				
124-126 w.s.	.0200	.0225	.0200	.0225
124-126 y.s.	.02	.0215	.02	.0215
Petroleum in barrels in carload lots:				
Dark green	.01⅞		.01⅞	
Amber	.02⅞	.03	.02⅞	.03
Extra amber	.03	.03⅛	.03	.03⅛
Lily white	.06⅝	.06¾	.06⅝	.06¾
Snow white	.07¾	.07⅞	.07¾	.07⅞
Cream	.05⅝	.05¾	.05⅝	.05¾
CHICAGO (f.o.b. switching district)*—				
122-124 wax	.0440	.0450	.0440	.0450
125-127 wax	.0465	.0475	.0465	.0475
127-129 wax	.0480	.0490	.0480	.0490
130-132 wax	.0540	.0550	.0540	.0550
132-134 wax	.0565	.0575	.0565	.0575

*Cents per pound on carload lots in burlap bags of 225 lbs. approx. Add 3° a.m.p.

Export Prices

GASOLINE

GULF COAST—	May 28		May 21	
U. S. Motor	.04¾		.04½	.04⅝
60-62 400	.04⅞		.04⅝	.04¾
61-63 390	.05		.04⅞	
64-66 375	.05⅛	.05¼	.05	
LOS ANGELES:				
U. S. Motor grades:				
53-55 octane	.04		.04	
55-65 octane	.04	.04¼	.04	.04¼
65-67 octane	.04¼	.04½	.04¼	.04½
67-69 octane	.04½	.04¾	.04½	.04¾
Above 69 octane	.04¾	.05	.04¾	.05
58-60 400 endpoint	.04½	.05	.04½	.05

KEROSENE

GULF COAST—				
41-43 prime white	.03⅞	.04	.03⅞	.04
41-43 water white	.04	.04¼	.04	.04¼
44 water white	.04¼		.04¼	
LOS ANGELES:				
41-43 water white	.04½	.05	.04½	.05

LUBRICANTS

NEW YORK (f.a.s. in bbls.)—				
Cylinder Stocks:				
600 Warren E	.19½		.19½	
600 S.R. unfiltered	.15½		.15½	
650 S.R. unfiltered	.16½	.17	.16½	.17
600 flash S.R.	.17½	.18	.17½	.18
630 flash S.R.	.21½	.22	.21½	.22
Bright Stocks:				
8 color	.23	.23½	.23	.23½
6½ plus colors in dilution	.22	.22½	.22	.22½

NEUTRAL OILS

200-3 color	.28		.28	
150-3 color	.23		.23	

PARAFFIN WAX (Fully Refined)

NEW YORK (prices per pound):				
123-125 a.m.p.	.03625		.03625	
125-127 a.m.p.	.0375		.0375	
128-130 a.m.p.	.0400		.0400	
130-132 a.m.p.	.0425	.0450	.0425	.0450
133-135 a.m.p.	.0475		.0475	
135-137 a.m.p.	.05		.05	
Crude scale:				
124-126 w.s.	.0210	.0220	.0210	.0220
124-126 y.s.	.0205	.0210	.0205	.0210

Crude Oil Gravity Table

Gravity—	Oklahoma and Kansas 1	North Texas, Central Texas and East Central Texas 2	North Louisiana and Arkansas 3	Gray County, Texas 4	Carson, Hutchinson and Moore Counties, Texas 5	Conroe, Texas 6	Salt Creek, Wyo. 7	Gulf Coast, Texas and Louisiana 8	Gulf Coast Texas and Louisiana 9	Cotton Valley, Louisiana 10
Below 20	....	....	....	....	....	....	....	$ .82	$ .82	....
20-20.9	....	....	....	....	....	....	....	.84	.84	....
21-21.9	....	....	....	....	....	....	....	.86	.86	....
22-22.9	....	....	....	....	....	....	....	.88	.88	....
23-23.9	....	....	....	....	....	....	....	.90	.90	....
24-24.9	....	....	....	....	....	....	....	.92	.92	....
Below 25	*$.76	....	....	....	....	....	....	....	....	$ .70
25-25.9	* .78	....	....	....	....	....	....	.94	.94	.72
26-26.9	* .80	....	....	....	....	....	....	.96	.96	.74
27-27.9	*.82	....	....	....	....	....	....	.98	.98	.76
28-28.9	* .84	....	....	....	....	....	....	1.00	1.00	.78
Below 29	.84	$ .79	$ .79	....	....	....	$ .84	....	....	....
29-29.9	.86	.81	.81	....	....	....	.86	1.02	1.02	.80
30-30.9	.88	.83	.83	....	....	....	.88	1.04	1.04	.82
31-31.9	.90	.85	.85	....	....	....	.90	1.06	1.05	.84
32-32.9	.92	.87	.87	....	....	....	.92	1.08	1.06	.86
33-33.9	.94	.89	.89	....	....	....	.94	1.10	1.07	.88
34-34.9	.96	.91	.91	....	....	....	.96	1.12	1.08	.90
Below 35	....	....	....	$ .79	$ .69	....	....	....	....	....
35-35.9	.98	.93	.93	.81	.71	$1.09	.98	1.12	1.09	.92
36-36.9	1 00	.95	.95	.83	.73	1.11	1.00	1.12	1.10	.94
37-37.9	1 02	.97	.97	.85	.75	1 13	1.02	1.12	1 11	.96
38-38.9	1.04	.99	.99	.87	.77	1.15	1.04	1.12	1.12	.98
39-39.9	1 06	1 01	1.01	.89	79	1.17	1.06	1.12	1.13	1 00
40 and over	1 08	1 03	1 03	.91	81	1.19	1.08	1.12	1.14	1.02

Effective December 3, 1934, Panhandle Refining Co., purchasing oil in North Texas, posted below 29 degrees, 68 cents; 29-29.9 degrees, 70 cents, with 2 cents added for each additional degree up to 40 and over, 92 cents.

*The following companies purchasing crude oil in Kansas or Oklahoma, or both, begin their price schedule: Below 25°, 76 cents; 25-25.9°, 78 cents, with 2 cents added for each degree upward to 40 and over at $1.08; Carter Oil Co., Magnolia Petroleum Co., Pure Oil Co., Rock Island Refining Co., Shell Petroleum Corp., Sinclair Prairie Oil Marketing Co., Skelly Oil Co., and Wilcox Oil & Gas Co. All others begin their schedules at below 29°, 84 cents, excepting Phillex Oil Co., which begins with below 31° at 88 cents.

Column 1—Effective September 29, 1933, Texas Co. of Oklahoma; Stanolind Crude Oil Purchasing Co. in Kansas and Oklahoma; Anderson & Prichard, Inc., in Oklahoma; Bell Oil & Gas Co. in Oklahoma; Carter Oil Co. in Oklahoma and Kansas; Deep Rock Oil Co. in Oklahoma; Derby Oil Co. in Kansas; Globe Refining Co. in Oklahoma; Golden Rule Refining Co. in Kansas; Gypsy Oil Co. in Oklahoma and Kansas; Kanotex Refining Co. in Kansas; Magnolia Petroleum Co. in Oklahoma; Mid-Continent Petroleum Corp. in Oklahoma; National Refining Co. in Kansas and Oklahoma; Shell Petroleum Corp. in Kansas and Oklahoma; Sinclair Prairie Oil Marketing Co in Kansas and Oklahoma; Texas Co. in Oklahoma; Tide Water Oil Co. in Oklahoma; Vickers Refining Co. in Kansas; Continental Oil Co. in Kansas and Oklahoma; Empire Pipe Line Co. in Oklahoma and Kansas; Phillex Oil Co. in Kansas and Oklahoma; Pure Oil Co. in Oklahoma; Skelly Oil Co. in Kansas. Effective September 29, by White Eagle Oil Corp. in Kansas; October 1, by Barnsdall Refineries, Inc., in Oklahoma.

Column 2—Effective September 29, 1933, by Texas Co., Stanolind Crude Oil Purchasing Co., Humble Oil & Refining Co., Sinclair Prairie Oil Marketing Co., Gulf Pipe Line Co., Magnolia Petroleum Co., Bell Oil & Gas Co., Continental Oil Co. Effective January 14, 1935, in the Van Pool, Van Zandt County, Pure Oil Co. posted below 29°, 79 cents, with 2 cents added for each degree up to 40 and over at $1.03.

Column 3—Effective September 29, 1933, by Texas Co., Magnolia Petroleum Co., Gulf Refining Co. Effective December 22, Stanolind Oil & Gas Co. in Pine Island, Louisiana, and Marion County, Texas, posted below 29°, 79 cents, with 2 cents added for each degree up to 40 and over at $1.03. Effective March 17, 1934, by Standard Oil Co. of Louisiana and Louisiana Oil Refining Co. Starting with below 25°, 71 cents, adding 2 cents for each degree upward to 40 and over at $1.03

Column 4—Effective September 29, 1933, by Texas Co., Humble Oil & Refining Co., Magnolia Petroleum Co., Sinclair Prairie Oil Marketing Co., and H. F. Wilcox Oil & Gas Co. On same day, Phillex Oil Co. posted below 31°, 71 cents, with 2 cents added for each degree up to 40 and over at 91 cents. Effective June 1, 1934, Texas Co. (see note above).

Column 5—Effective September 29, 1933, by Texas Co., Humble Oil & Refining Co., Gulf Pipe Line Co., Magnolia Petroleum Co., Wilcox Oil & Gas Co., Continental Oil Co. On same day, Phillex Oil Co. posted below 31°, 61 cents, with 2 cents added for each degree upward to 40 and over at 81 cents. Effective June 1, 1934, Texas Co. (see note above).

Column 6—Effective September 29, 1933, by Humble Oil & Refining Co. and Tide Water Oil Co., and on September 30 by Texas Co., which on September 29 had posted a schedule of $1.07 to $1.12 with a 1-cent spread on each degree.

Column 7—Effective September 29, 1933, by Stanolind Oil & Gas Co.

Column 8—Effective September 29, 1933, by Humble Oil & Refining Co., Gulf Pipe Line Co., Shell Petroleum Corp., Pure Oil Co., Sinclair Prairie Oil Marketing Co. On October 2, Magnolia Petroleum Co. posted Lockport, Louisiana, 20-20.9°, 84 cents, with 2 cents added for each degree upward to 34 and over at $1.12; and in Cameron Meadows and Iowa, Louisiana, below 20°, 72 cents, with 2 cents added for each degree up to 34 and over at $1.02. These prices were 2 cents higher on each degree than Magnolia prices posted on September 29. Effective September 29, Shell Petroleum Corp. posted in Iowa, Louisiana, district: Below 20°, 70 cents, with 2 cents added for each degree upward to 34° and over at $1; and in Black Bayou and White Castle, Louisiana: Below 20°, 80 cents, with 2 cents added for each degrees upward to 34° and over at $1.10.

Column 9—Effective September 30, 1933, Texas Co. (On September 29 Texas Co. has posted a schedule of 2 cents on each degree, but changed it on September 30.)

Column 10—Effective September 29, 1933, by Louisiana Oil Refining Co.

(California Crude Oil Prices on Page 37)

Crude Oil Prices

Oklahoma, Kansas, North Central and East Central Texas

East Texas $1.00
Corsicana (heavy) (June 17, 1933)* ..... .80
Other fields ..... (See gravity table)

Note—In East Texas, effective September 29, 1933, by Texas Co., Stanolind Crude Oil Purchasing Co., Humble Oil & Refining Co., Shell Petroleum Corp., Gulf Pipe Line Co., Tide Water Oil Co., Sinclair Prairie Oil Marketing Co., Magnolia Petroleum Co., Sun Oil Co., Panola Pipe Line Co., Empire Oil & Refining Co., and Atlas Pipe Line Co. posted 60 cents per barrel in East Texas but on November 3 resumed its posted price of $1 per barrel, making it retroactive to October 22.

*Magnolia Petroleum Co.

West Texas

Crane, Upton, Crockett, Howard, Glasscock, Mitchell (Sept. 29, 1933) ..... $ .70
Ector, Winkler and Pecos Counties and Lea County, New Mexico (Sept. 29, 1933) ..... .76
Pecos County, Yates shallow Pool (Sept. 29, 1933)* ..... .66
Jones and Fisher Counties*. See gravity table

Note — Effective September 29, 1933, by Humble Oil & Refining Co., Texas Co., Gulf Pipe Line Co., Shell Petroleum Corp., Magnolia Petroleum Co., and by Stanolind Oil & Gas Co. in Winkler County, Texas.

*Shell Petroleum Corp.

Gulf Coast

Grade A and Grade B specification discontinued by leading buyers.
..... (See gravity table)
Tomball (see note)* $1.10
Livingston (Sept. 29, 1933)† 1.00
Cleveland (Jan. 11, 1934) 1.00
Greta (Sept. 29, 1933) ..... .85
Refugio, light ..... (See gravity table)
Refugio, heavy (Sept 29, 1933)‡ ..... .85
Markham and High Island .....
..... (See Gulf Coast gravity table)
Conroe ..... (See Conroe gravity table)
Bosco, La. (Jan. 18, 1935)§ ..... $ .90

Note—Tomball, effective September 29, by Humble Oil & Refining Co. and October 2 by Magnolia Petroleum Co., and November 10 by Stanolind Crude Oil Purchasing Co.

*Greta posted by Texas Co. †Shell Petroleum Corp. ‡Refugio heavy by Humble Oil & Refining Co. Cleveland (Liberty County) posted by Magnolia Petroleum Co. §Bosco posted by Pure Oil Co.

South Central and Southwest Texas

(See note below table)

Darst Creek ..... $ .87
Mirando ..... .80
Luling (Sept. 29, 1933) ..... .75
Pettus 1.05
Salt Flat ..... .87
Lytton Springs (Sept. 29, 1933) ..... .85
Duval County (Sept. 29, 1933) ..... .80
Saxet ..... .85

Note—Effective on September 29 by Humble Oil & Refining Co. in Darst Creek, Mirando, Pettus, Salt Flat and Saxet. Effective September 29 in Darst Creek by Gulf Pipe Line Co. and Texas Co. Effective October 2 by Magnolia Petroleum Co. Effective in Pettus and Salt Flat on September 29 by Humble Oil & Refining Co. and Gulf Pipe Line Co. Luling and Lytton Springs by Magnolia Petroleum Co. Duval County by Texas Co. Saxet, effective September 29 by

(Continued on Page 37)

TANK WAGON MARKETS

Quotations for gasoline and kerosene in United States, as furnished by the larger marketing concerns, include taxes

May 28, 1935

Taxes

The gasoline quotations given in the following tables include the 1-cent federal tax, as well as state, county and city taxes. The gasoline quoted is the regular or standard grade. In most marketing areas a third grade and a premium grade are also available.

Discounts

Under the standard form of commercial consumer contract which went into effect March 1, 1934, save in California, Oregon, Washington, Arizona and Nevada, a discount of 1 cent a gallon off tank wagon or 2 cents a gallon off retail prices is permitted for purchases running between 4,000 and 10,000 gallons a month, or 4 cents a gallon off retail prices for purchase in lots of more than 10,000 gallons a month. The minimum delivery is 25 gallons.

Standard Oil Co. (Indiana)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Chicago	15.2	17.2	4.0	9.8
Decatur, Ill.	15.2	17.2	4.0	9.8
E. St. Louis	14.9	16.9	4.0	9.5
Joliet	15.2	17.2	4.0	9.8
Peoria	15.2	17.2	4.0	9.8
Quincy	15.0	17.0	4.0	9.6
Davenport, Ia.	15.2	17.2	4.0	9.8
Des Moines	15.0	17.0	4.0	9.6
Mason City	15.4	17.4	4.0	10.0
Sioux City	15.2	17.2	4.0	9.8
Duluth, Minn.	16.0	18.0	4.0	10.6
Mankato	15.6	17.6	4.0	10.2
Minneapolis	15.6	17.6	4.0	10.2
LaCrosse, Wis.	16.6	18.6	5.0	10.2
Green Bay	16.9	18.9	5.0	10.5
Milwaukee	16.5	18.5	5.0	10.1
Madison	16.6	18.6	5.0	10.2
Detroit, Mich.	16.7	18.7	4.0	9.8
Grand Rapids	16.6	18.6	4.0	9.8
Saginaw	16.8	18.8	4.0	9.8
Evansville, Ind.	16.9	18.9	5.0	10.3
Indianapolis	17.1	19.1	5.0	10.5
South Bend	17.3	19.3	5.0	10.7
Fargo, N. Dak.	16.6	18.6	4.0	11.2
Huron, S. Dak.	17.1	19.1	5.0	10.7
Sioux Falls	16.6	18.6	5.0	10.2
Kans. Cl., Mo.*	14.6	16.6	4.0	9.2
Springfield	14.3	16.3	4.0	8.9
St. Louis	14.9	16.9	3.5	9.5
St. Joseph*	14.6	16.6	4.0	9.2
Wichita, Kans.	14.1	13.9	4.0	6.3
Bartlesville, Ok.	16.0	18.0	5.0	8.8

*State tax 2 cents, 1-cent city tax and 1-cent federal tax.

Discounts to dealers: Undivided accounts, 1¼ cents on premium and regular and 2½ cents on third grade off service station prices; divided accounts one-half cent less than undivided. Where prices are more than 1 cent below normal, the discounts are one-half cent less than above.

Stanolax Furnace Oil in Chicago

Effective May 28, 1935, f.o.b. Chicago tank wagon prices: Range oil, less than 80 gallons, 8¼ cents; 80-149 gallons, 7½ cents; 150 gallons and more, 7 cents. No. 1 (36-40 lt. stw. zero), less than 100 gallons, 8¼ cents; 100-149 gallons, 7½ cents; 150 gallons or more, 7.3 cents; No. 2 (30-34, stw. zero), less than 150 gallons, 8 cents; No. 3 (32-36, zero), less than 150 gallons, 7 cents; No. 4 (12-16 zero), less than 400 gallons, 7 cents; viscosity of No. 4, 95 and 100° F.; No. 5, less than 400 gallons, 5¾ cents. For deliveries of more than stated quantities of Nos. 2, 3, 4 and 5, deduct 1 cent.

Southern District

STANDARD OIL CO. (KENTUCKY)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Atlanta, Ga.	18.0	20.0	7.0	12.0
Augusta	19.0	20.0	7.0	13.0
Macon	19.5	21.0	7.0	13.0
Savannah	18.5	20.5	7.0	14.0
Birm'ham, Ala.	21.0	23.0	8.0	10.0
Mobile	20.0	22.0	8.0	11.0
Montgomery	22.0	24.0	8.0	15.5
Jackson, Miss.	19.0	21.0	7.0	11.0
Vicksburg	19.0	21.0	7.0	14.5
Jack'ville, Fla.	18.5	20.5	8.0	11.5
Miami	18.5	20.5	8.0	13.5
Pensacola	20.0	22.0	8.0	11.5
Tampa	18.5	20.5	8.0	12.5
Lexington, Ky.	19.0	21.0	6.0	10.0
Covington	18.0	19.5	6.0	11.5
Louisville	18.0	20.0	6.0	10.0
Paducah	18.0	20.0	6.0	7.0

In addition to the state tax of 4 cents on gasoline, Montgomery has city and county tax of 2 cents on gasoline and one-half cent on kerosene. Kerosene prices in Georgia and Mississippi include 1 cent state tax; in Alabama, an inspection fee of one-half cent on kerosene and one-fortieth cent on gasoline; in Florida an inspection fee of one-eighth cent on kerosene and gasoline. To Pensacola, Mobile and Birmingham state taxes on gasoline add 1 cent city tax.

Rocky Mountain District

CONTINENTAL OIL CO.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Denver, Colo.	18 0	20.0	5 0	13.0
Pueblo	17.0	19.0	5.0	12.0
Grand Junction	20.5	22.5	5.0	15.0
Casper, Wyo.	18.5	20.5	5.0	11.5
Cheyenne	18.5	20.5	5.0	13.0
Butte, Mont.	22.0	24.0	5.0	17.5
Billings	20.5	22.5	6.0	16.5
Helena	22.5	24.5	6.0	17.5
Great Falls	20.5	22.5	6.0	17.5
Salt Lake, Utah	21 0	23.0	5.0	16.0
Boise, Idaho	22.5	24.5	6.0	18.0
Twin Falls	22.5	24.5	6.0	18.0
Albu'que, N. M.	20.0	22.0	*6.5	13.0

*One-half cent city tax.

Effective March 1, 1934, discount to dealers with or without contract throughout Continental territory: Undivided dealer discount off service station price, 4 cents; divided dealer accounts, 3½ cents.

Southwestern District

MAGNOLIA PETROLEUM CO.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Dallas, Tex.	15.0	17.0	5.0	8.0
Fort Worth	15.0	17.0	5.0	8 0
Houston	15 0	17 0	5.0	8.0
San Antonio	15.0	17.0	6.0	8.0
El Paso	17.0	19.0	5.0	10.0
Muskogee, Ok.	16.0	18.0	5.0	8.0
Okla. City	16.0	18.0	5 0	8 0
Tulsa	16.0	18.0	5 0	8 0
Ft. Smith, Ark.	14.5	18.0	5.0	8.0
Little Rock	17.0	20 0	7.5	8.0
Texarkana	15.5	17.5	5.0	8.0

Atlantic Coast District

STANDARD OIL CO. OF NEW JERSEY

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Atl'tic City, N.J.	14.0	17.5	4.0	9.0
Newark	12.3	16.8	4.0	7.5
Annapolis, Md.	14.5	18.1	5.0	10.0
Baltimore	14.1	17.6	5.0	8.5
Cumberland	15.8	19.1	5.0	12.7
Wash'g'n, D. C.	12.3	15.8	3.0	9.5
Danville, Va.	16.6	20.1	6.0	12.9
Norfolk	15.1	18.6	6.0	11.3
Petersburg	15 8	19 3	6.0	11.4
Richmond	15 8	19.3	6.0	11.7
Roanoke	16 8	20.3	6.0	12.9
Charles'n, W.Va.	15.0	18.5	5.0	12.6
Parkersburg	14 3	17.8	5.0	11.2
Wheeling	15.0	18.5	5.0	12.2
Charlotte, N. C.	18.4	21.9	7.0	15.5
Hickory	18.7	22.2	7.0	13.7
Mt. Airy	18.25	21.5	7.0	13.8
Raleigh	18.2	21.7	7.0	13.3
Salisbury	16 3	18.3	7.0	13.6
Charleston, S.C.	16.2	19.7	7.0	11.3
Columbia	18 0	21.5	7.0	13.2
Spartanburg	17 05	19.3	7.0	13.5

Effective October 23, tank wagon gasoline refers to dealer instead of retail prices. Price basis to dealers: Undivided dealers at regular price less one-half cent. Discount for kerosene, 1 cent off tank wagon price for 35 gallons or more under contract (contract not necessary in Baltimore) except in New Jersey, where no discount is given.

Nebraska

STANDARD OIL CO. OF NEBRASKA

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Omaha	17 6	19.6	6.0	10.1
McCook	18 3	20 3	6 0	10.8
Norfolk	18 0	20.0	6.0	10.5
North Platte	18 4	20.4	6.0	10.9
Scottsbluff	19 1	21.1	6.0	11.6

Note: Discounts to dealers; where service station gasoline prices are (maximum overall, including rent) as follows: Reliance, 2½ cents; Standard Red Crown, 3½ cents; Red Crown Ethyl, 3½ cents.

Where service station gasoline prices are below normal, resellers' allowances are reduced one-half of the amount below normal, down to the following (minimum overall, including rent): Reliance, 2 cents; Standard Red Crown, 3 cents; Red Crown Ethyl, 3 cents. Discounts to consumers for tank wagon deliveries covered only by Standard Commercial Consumers Contract, effective January 1, 1935.

Central South District

STANDARD OIL CO. OF LOUISIANA

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
N. Orleans, La.	17 5	21.0	‡8.0	†13.0
Baton Rouge	16.5	20.0	†7 0	12.0
Alexandria	17.5	21.0	†*8.0	10.0
Lafayette	18.0	21.5	†*8.0	12.0
Lake Charles	18.0	21.5	†*8.0	12.0
Shreveport	16 0	19.5	†7.0	12.0
Knoxville, Tenn.	19.25	22.0	8.0	13.5
Memphis	17.75	21.0	8.0	10.5
Chattanooga	18.75	21.5	8.0	11.0
Nashville	18.25	21.0	8.0	13.0
Bristol	17.85	20.6	8.0	14.0

*Includes city tax of 1 cent.

‡Includes 2-cent parish tax. †Includes 1-cent parish tax.

Effective October 22, tank wagon gasoline refers to dealer instead of retail prices.

Price basis to dealers: Undivided dealers at dealer price less one-half cent.

Louisiana kerosene prices include 1-cent state tax.

Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA.

	Gasoline: Tank wagon†	Gasoline: Posted retail	Gasoline: Incl'ds tax of	Kero. tank wagon
San Francisco	16.5	18.5	4.0	11.5
Los Angeles	16.0	18.0	4.0	10.5
Fresno, Calif.	17.0	19.0	4.0	12.0
Phoenix, Ariz.	20.0	22.0	6.0	‡15.0
Reno, Nev.	18.0	20.0	5.0	13.0
Portland, Ore.	19.0	21.0	6.0	13.5
Seattle, Wash.	19.0	21.0	6.0	13.5
Tacoma	19.0	21.0	6.0	13.5
Spokane	22.0	24.0	6 0	16.5

*Retail prices posted by Standard Stations, Inc., a subsidiary.

†Prices are at company's plant or depots, as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank wagon lots except in Phoenix where the discount is 1 cent.

‡Includes 5-cent state tax.

Pennsylvania, Delaware and Part of New England

ATLANTIC REFINING CO

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Phil'delphia, Pa.	15.0	17.0	4.0	9.0
Pittsburgh	16.0	18.0	4.0	10.0
Allentown	15.5	17.5	4.0	10.0
Erie	15.0	17.0	4.0	9.0
Scranton	16.0	18.0	4.0	10.0
Altoona	16.0	18.0	4.0	10.0
Dover, Del.	15.5	17.5	4.0	10.0
Wilmington	15.5	17.5	4.0	9.0
Springf'd, Mass.	13.2	16.7	4.0	7.5
Worcester	13.3	16 8	4 0	7.5
Hartford, Conn.	12 3	15 8	3.0	7.5
New Haven	12.2	15.7	3.0	7.5
Providence, R.I.	12.0	15.5	3.0	7.0

Note—Tank wagon prices are those applicable to consumers purchasing lots of 100 or more gallons in one delivery.

Canada*

Imperial 3-Star Gasoline

IMPERIAL OIL, LTD.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Hamilton, Ont.	22 0	25.0	6.0	17.5
Toronto, Ont.	22 0	25 0	6.0	17.5
Brandon, Man.	30 3	33 3	7.0	21 8
Winnipeg, Man.	28.7	31.7	7.0	20.2
Regina, Sask.	30.0	33.0	7.0	21.5
Saskatoon, Sask	32 8	35.8	7.0	24.3
Edmonton, Alta.	32 2	35.2	7.0	23 7
Calgary, Alta.	29 5	32.5	7.0	21.0
Vancouver, B.C.	27.0	30.0	7.0	24.0
Montreal, Que.	24.0	27.0	6.0	17.0
St. John, N.B.	26.0	30.0	8.0	19.5
Halifax, N. S.	26.0	30.0	8.0	19.5

*Imperial gallon used in Canada.

Maritime provinces, all dealers 4 cents off service station price. All other provinces open dealers 3 cents per gallon off service station price, 1 cent additional to 100 per cent accounts.

Naphtha

STANDARD OIL CO (INDIANA)

	Tank wagon*
Oleum spirits	15.7
V.M.&P. naphtha	16.0
Cleaners' naphtha	15.0
Stanisol	15.0

*Prices include 3-cent Illinois tax, but not 1-cent federal tax nor 3 per cent retail occupational tax.

Prices f.o.b. Chicago, March 12, 1935. Each of above prices subject to discount of 1 cent per gallon for 150-gallon lots if covered by contracts.

New York and New England

SOCONY-VACUUM CO., INC

	Gasoline: Posted dealer	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Albany, N. Y.	14.2	17.7	5.0	7.5
*Met. New York	14.55	18.3	5.0	7.35
*Br'kl'n, Queens	14.3	17.8	5.0	7.25
Buffalo	14.7	18.2	5.0	8.0
Rochester	14.7	18.2	5.0	8.5
Syracuse	14.5	18.0	5.0	8.5
Boston, Mass.	13.0	16.5	4.0	7.0
Portland, Me.	14.5	18.0	5.0	7.5
Manch't'r, N.H.	14.8	18.3	5.0	8.25
Burlington, Vt.	16.2	19.7	5.0	8.5

*Includes 2 per cent city sales tax.

Ohio

STANDARD OIL CO. OF OHIO

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Ohio points	16.5	18.5	5.0	*12.5

*Includes state tax of 1 cent, effective July 22.

Retail Price Changes

Regular-Grade Gasoline and Kerosene

Standard Oil Co. of California, May 22, reduced tank wagon and station gasoline 1 cent in Reno; advanced tank wagon kerosene .5 cent in Portland.

Standard Oil Co. of Louisiana, May 16, reduced tank wagon gasoline .75 cent and station gasoline 1.5 cents in Knoxville, Chattanooga and Nashville; reduced tank wagon gasoline .25 cent and station gasoline .5 cent in Memphis.

Atlantic Refining Co., May 18, advanced tank wagon and station gasoline 1 cent in Philadelphia, Pittsburgh, Allentown, Scranton, Altoona, Dover and Wilmington.

Standard Oil Co. of New Jersey, May 21, reduced tank wagon gasoline .45 cent and station gasoline .7 cent in Mount Airy.

Continental Oil Co., May 20, advanced tank wagon kerosene 2 cents in Denver.

Socony-Vacuum Oil Co., Inc., May 6, advanced tank wagon and station gasoline .2 cent in Albany. May 7, reduced tank wagon kerosene .5 cent in Boston. May 8, reduced tank wagon kerosene .25 cent in Syracuse.

CRUDE OIL PRICE CHANGES

Effective May 22 the Ohio Oil Co. increased the price of western Kentucky crude oil 5 cents per barrel, or from $1.08 to $1.13 per barrel. This puts all Kentucky crudes on an even basis as to price, as eastern Kentucky crude was recently reduced from $1.18 to $1.13.

DEATH OF G. C. DAVISON

Commander G. C. Davison, widely known in eastern oil circles, died May 7 at his summer home near Lyme, Conn. In 1918 he organized the Bed Rock Oil Co., which drilled discovery gas wells on Mine Fork Dome in eastern Kentucky. This company also pioneered the development of oil in Johnson and Magoffin Counties, Kentucky, having drilled discovery well; No. 1 Milt Wheeler, completed June 18, 1919. In 1925 he and associated companies built a refinery at Kenova, W. Va., known as the Tri-State Refining Co. This plant was sold to the Ashland Refining Co. in 1930 and since that time Bed Rock company has been engaged only in the production of crude and natural gas. The Bed Rock Oil Co., a Kentucky corporation, was succeeded by the Bed Rock Petroleum Co. in 1920, which was merely a change in the state of incorporation. Commander Davison was a member of the American Petroleum Institute and the National Petroleum Association.

WILLIAMSON COUNTY SALE

FORT WORTH, Tex., May 27.—R. A. Westbrook and Williamson County Pipe Line Co. have sold 200 acres of leases in the Taylor Field, Williamson County, to H. H. Coffield of Rockdale.

Late Fields

OKLAHOMA

J. C. Shaffer and others' No. 1 Hammond, SE SE SW Section 10-15-4w, in the Nevina district, Logan County, was abandoned at 7,100 feet. It had no showings from any formation excepting a small show of oil in the Checkerboard lime. Hunton lime was topped at 6,507 feet; Sylvan at 6,655 feet, first Wilcox sand at 6,975 feet and second Wilcox at 7,069 feet. It was then cored and reamed to the bottom.

Anderson & Kerr and others are going on down in their No. 1 Renfrow in NE cor. of Section 36-16-4w, in western Logan County. This test had Woodford shale at 6,885 feet and was drilling at 6,947 feet. They had almost decided to abandon at 6,730 feet, in Mississippi lime, but decided to go several hundred feet deeper.

In the Lucien Field in Noble County the Texas Co.'s outpost well, No. 1 Snodgrass, in C SE SW NE Section 7-20-2w, is shut down for orders. It had Dolomite at 5,183 feet and cored from 5,210 to 5,240 feet, recovering sandy Dolomite with a small showing of oil and gas at 5,224-26 feet. The well was then drilled to 5,250 feet and cored from 5,250 to 5,270 feet, total depth. Limy sand was recovered at 5,250-61 feet. In the same field the Magnolia Petroleum Co.'s No. 1, C SW SW Section 27-20-2w, would not flow and was put on the pump. It made 132 bbls. in eight hours and later pumped and flowed 8 to 10 bbls. per hour. Wilcox sands lie at 5,081-5,104 feet and 5,143-55 feet.

It is reported the Stanolind Pipe Line Co. is contemplating another 8-inch line out of the Fitts Pool in Pontotoc County.

KANSAS

The Atlantic Petroleum Co.'s far western Kansas test, C SE SE Section 28-20-33w, Scott County, had Topeka lime at 3,560 feet and oil-saturated Lansing lime at 3,945 feet. What is believed to be Pennsylvanian was penetrated at 4,744-56 feet, which will be tested.

A new Siliceous lime pool in Russell County, 4½ miles west of the Russell Pool, appears to be in sight. Hartman & Blair's No. 1 Cook in Section 26-13-15w, flowed 4 bbls. per hour at 3,317-20 feet, total depth. Five-inch casing was being run and the hole will be deepened.

MICHIGAN

MUSKEGON, Mich., May 28. — Two successes and two disappointments developed in Crystal Township, Montcalm County, indicating possible north and east limits. J. W. Leonard, Jr., trustee's No. 1 C. R. West estate, NE NE NW Section 11-10n-5w, is making about 4,000 bbls. daily from Dundee topped at 3,173 feet, drilled to 3,190 feet, as direct west offset to discovery, Leonard's No. 1 Otto Durbin, same section. Daily Crude Oil Co.'s No. 1 Tow, SE NW SW Section 2, half mile northwest of discovery, came in making 19 bbls. hourly, topping the Dundee at 3,186 feet and drilled to 3,190 feet. Reported increased to 120 bbls. hourly by deepening. Eastern Gulf Oil Co.'s No. 1 George W. Barger, SW SW SE Section 2, direct north offset to discovery, first reported at 4,800 bbls., showed salt water and dropped to 32 bbls. daily. It was shut down at 3,187 feet awaiting orders to deepen. Dundee was topped at 3,178 feet.

Taggart Brothers, Inc.'s No. 1 Fred Smith, SW SW SW Section 1, half mile east of Barger and discovery, hit a hole full of water at 3,214 feet, with no show after topping the Dundee at 3,183 feet.

RUSK POOL

GRAHAM, Tex., May 28.—Wood and others' No. 3 New Birmingham Development Co., in Levi Jordan Survey, 800 feet southeast of the same operators' discovery in the Rusk Pool, Cherokee County, made 44 bbls. during the first hour through five-sixteenths inch choke at a total depth of 5,179 feet. This is the third test for the area and second well, proving dry. Location made for No. 4 and also for locations on adjacent leases.

R. C. Larkins and others staked location on Ella Gibson ranch, 4 miles northwest of the Childress County wildcat south of Kirkland. Alma Oil Co.'s No. 1 Lowe, south of Kirkland, is showing for a wildcat discovery and is testing at a total depth of 5,653 feet.

TIDE WATER ADVANCES WAGES

Tide Water Oil Co. announced an increase in wages and salaries of 5 per cent, effective June 1.

WASHINGTON NEWS

(Continued from Page 13)

ity of the federal Government may not be extended to such an extreme as to destroy the distinction which the commerce clause establishes between commerce among the several states and the internal affairs of the state.

The same answer must also be made to the contention raised by the Government that the fall in prices, the decline in wages and employment, and the curtailment of the market for commodities serves as a sound basis for the recovery act. There being no constitutional authority for the law, the law is unconstitutional.

Codes Nullified

The effect of this decision is, apparently, to nullify all parts of the petroleum code, and all provisions of the recovery act in so far as they apply to the petroleum industry with the possible exception of Section 7 (A), the collective bargaining feature of the recovery act.

Informal opinion is, however, that the Pacific Coast agency agreement will not be affected by the verdict, that agreement resting upon an independent agreement among the operators and being specifically approved by the President.

The quandary of congressional leaders as to what action to take in rewriting the act to conform with the decision prohibits any definite statement as to what course this type of legislation will take in the future, but informal opinion is that clarifications, specifically exempting intrastate trade or industries, will be written into any new law, while definite standards to guide the President in promulgating codes will also be included.

It is the opinion of some that the only valid law which can be written now would place the promulgation of codes in the hands of Congress, but if this is done it is believed that the utmost confusion would ensue, with the probability that workable codes could not be enacted.

While supporters of the Wagner labor relations bill state that the decision does not in any way affect the validity of such proposed law, it is the opinion of others that it would be outlawed. The consensus is, also, that the 30-hour week bill is definitely off of the books.

Production Situation Not Affected by the Decision

(Continued from Page 9)

Covern and his department are able with the co-operation of the Bureau of Mines which always has and still is compiling similar figures, to determine fairly accurately crude oil and gasoline requirements. There is nothing in any existing law to prevent trade publications from publishing figures on future consumer requirements for crude oil and gasoline. It is logical to expect the industry will arrange to continue such fact finding agencies as are deemed necessary to compile such information and, should any doubt arise as to whether issuance of such figures by such an agency might violate antitrust laws, the trade publications can compile and publish such information.

Conservation laws of the states of Oklahoma, Texas and Kansas have been upheld by the Supreme Court and the decision of the Supreme Court relating to the NRA does not affect existing state laws relating to the petroleum industry. Consequently, in these three states at least, the state regulatory bodies have the same power they always had and can continue to set crude oil production allowables and enforce these allowables. California has had a voluntary committee arrangement with a state umpire and the situation there will be as before enactment of the NRA. As in either areas a small number of producers might overproduce for selfish reasons but the industry always has had such chiselers and probably always will. Such matters are in the hands of existing committees in the State.

There was a tendency on the part of the Petroleum Administrative Board to keep crude oil production allowables at a high figure and the industry, on the average, has always exceeded these high allowables. Exceptional care should be exercised at this time by the producing branch of the business to keep its output well within the limits of consumer requirements. There is no reason whatever why conditions which have been pointing towards better crude oil prices should not continue and result in these better prices if producers and refiners hold their operations within sound limits.

Gasoline Allocations

Probably the one effect the industry will feel more quickly than any other as a result of the Supreme Court decision is in the matter of gasoline allocations. There is not any state regulatory body which has been functioning in this matter and such allocations have been a new development under the code. Associations always have wondered how far they might go in suggesting allocations without violating the antitrust acts. Until this question is further clarified refiners are hopeful everyone will continue to hold his operations strictly to consumer demand within his own territory and not increase runs to stills to a point where burdensome stocks of gasoline will be accumulated with the inevitable weakness of price structures.

The petroleum industry has had two years in which to calculate cooly the benefits of regulated crude oil and gasoline production to consumer demand. It certainly has learned the lesson that gallonage without profit can lead only to bankruptcy and that it is far better to sell its products at a small profit than to increase sales at the expense of profits. It is like a drug addict who has been prevented from indulging in the habit for two years. If he goes back to the habit now he not only shows he did not learn anything during the two years but also that he is too weak to do what is best for him.

A large part of the industry always has favored orderly development of new pools and it is expected every effort will be made on the part of the large producers at least to continue this policy and avoid expensive, uneconomic development which in many instances has almost verged on the town lot competition.

While it is expected an intensive effort will be made in Washington to rewrite the N.R.A. to conform to the opinion of the Supreme Court, any such law enacted, to come within the limits set by the Supreme Court's decision, must necessarily be very materially restricted. The petroleum industry will not be affected to any great extent by any law which might be prepared and enacted by Congress.

Special Legislation

But the present situation undoubtedly will intensify the demand of Secretary Ickes for special legislation giving the federal Government control over the petroleum industry. It may be expected he will claim the industry is headed for chaos; that it cannot conduct its own affairs; that public interests demands its control by the federal Government, etc. Those with the best interests of the business at heart are sincerely hopeful the beneficial policies of the past will be continued and that selfish interests will be curbed in such a way as to prevent them from rocking the boat.

The only legislation needed by the petroleum industry is an act sanctioning the interstate compact; providing for a fact-finding board to recommend crude oil and gasoline allocations; and limiting crude oil imports to a figure agreed upon by the industry. Such permissive legislation, confined to those factors, would give the industry all the beneficial effects of the petroleum code.

Companies to Continue Status, Byles Believes

NEW YORK, May 28. — Axtell J. Byles, president of the American Petroleum Institute, has issued the following statement:

"The oil companies, which constitute, both in investment and volume of business, the preponderance of the petroleum industry, have for many years maintained one of the most liberal wage scales in American industry and reasonable hours of labor. It is my belief that the abandonment of the petroleum code will not affect the present status of employes in these respects.

It is my opinion that oil companies generally will continue to support those rules of fair practices which they have learned from experience will make for stabilization in the petroleum industry and methods will be developed quickly to carry on voluntarily those business practices which have been demonstrated to be sound and wholesome."

It was generally agreed ending of code regulations and other provisions may bring some temporary confusion in the oil business as in other industries, but, that none of the necessary changes is basic so far as the future prosperity of the industry is concerned and that if necessary the industry can well afford to make temporary sacrifices for the long term permanent benefits certain to accrue once the industry has had time to adjust itself to normal conditions.

The greatest concern that has been expressed locally, and that largely comes from outside the oil industry, applies to the possible collapse in prices due to the dropping of code agreements covering retail and wholesale marketing practices. Those closest to this situation are not alarmed. At best, it is a disputed point as to whether the marketing codes ever contributed to stabilization. They were helpless the latter part of last year and the forepart of this year in preventing the gasoline price declines covering a large part of the United States in which prices were out of line with cost of production and distribution.

At the same time the code revisions have complicated the labor problems, adding substantially to marketing costs in combating cut-price conditions. Code provisions have often tied the hands of legitimate operators who otherwise could have brought a quick return to normal price conditions. It is no exaggeration to state that a majority of both large and smaller distributors will witness the passing of the marketing codes provisions without regret. Later should there be a demand within the industry it would be possible to return to some form of voluntary codes as were effective in the oil industry under the supervision of the Federal Trade Commission previous to the passage of the National Recovery Act in 1933.

Refined Shipments in East Texas Field Drop

(Continued from Page 12)

Peters, agent) has sold its refinery at Gladewater, on the Godlin farm, M. Dillard Survey, to M. S. Johnson.

Reports show a total of 30 refineries operating at different times during the week, averaging over 42,000 bbls. per day, an increase of over 15,000 bbls. per day over the previous week.

A. C. Johnson of Dallas has announced a mandamus suit to force the Railroad Commission to allow him to transport approximately 60,000,000 bbls. of crude, will be filed in Judge Randolph Bryant's Federal Court at Tyler. He said the money was ready for the oil, which is to go to foreign purchasers, principally Japan and England. An offer of 60 cents per barrel is made.

NATURAL GASOLINE MANUFACTURE

Uses of Liquefied Propane in Lub Oil Manufacture

The use of propane in the refining of lubricating oils is a matter of growing interest to the petroleum industry. Several refiners have installed commercial plants utilizing propane alone or in combination with other solvents in the following operations:

1. To de-asphaltize asphaltic or mixed-base oils.
2. To dewax residual or overhead oils.
3. As a diluent in acid and clay treating processes.
4. In combination with selective refining.

A review of current literature indicates that propane from natural gas is more desirable for solvent applications due to its freedom from olefin constituents, but that for dewaxing processes, propane from either natural gasoline or refinery still gas sources is satisfactory.

Unless propane fractionating and treating equipment is already at hand in the refinery, the most economical source of propane is through purchase in tank car lots. A typical analysis of commercial propane according to a bulletin issued by the Phillips Petroleum Co., is shown below:

	Per cent by volume	
	From natural gas	From refinery gas
Ethane	2.2	2.0
Propane	97.3	78.5
Propylene	0.0	19.0
Butanes	0.5	0.5
	100.0	100.0

The properties representative of commercial propane are as follows:

Vapor pressure, lbs. per sq. in. gauge:	
At 70° F.	124
At 105° F.	206
At 130° F.	286
Specific gravity of liquid (60°/60° F.)	509
Initial boiling point, °F.	—51
Wt. per gal. of liquid at 60° F., lbs.	4.24
Cu. ft. gas at 60° F., 30" Hg., per gal. of liquid at 60° F.	36.28
Spec. gr. of gas at 60° F., 30" Hg.	1.52

Propane is shipped in special tank cars which are covered with 4 inches of cork insulation with an eighth-inch metal jacket protecting the cork. All connections to the tank on these cars are through the manhole cover plate, each connection, except safety valves, being equipped internally with an excess flow valve to prevent loss of contents in the event of damage to external valves during transit or unloading.

Approximately 9,600 gallons of propane are shipped in each car. Unloading is most easily accomplished by the use of small motor driven rotary pump. The time required for unloading will vary from three to seven hours according to the size of pump installed.

GASOLINE ABSORPTION PLANT

CALGARY, Alberta, May 25.—Construction is under way on the new Royalite Oil Co. gasoline absorption plant on the Sterling-Pacific lease in South Turner Valley. The plant is expected to be in operation early in July.

C.N.G.A. SPORTS FESTIVAL

The Annual Sports Festival of the California Natural Gasoline Association will be held in a characteristically fine setting on Saturday, June 8, at the Sunset Canyon Country Club in Burbank. Reservations may be made through the secretary's office for golf, tennis, badminton, swimming, baseball, horseshoes, ping-pong, and all sorts of indoor sports. The banquet and entertainment will conclude the frolic.

Reid Test Recommended in the Report of N. G. A. A. Technical Committee

By R. C. ALDEN
Phillips Petroleum Co.*

After several years of comparative inactivity your technical committee has taken a new lease on life. Several important projects are being actively prosecuted and others are under consideration.

At this time it is appropriate to review the status of the Reid vapor pressure testing method. In the first place, it can safely be stated that with the exception of tests of gas for gasoline contents no other single testing method is so closely associated with the economics of the natural gasoline industry than is the Reid vapor pressure test. From one viewpoint, the Reid vapor pressure test is far more important than any other test. I have reference to the fact that the Reid vapor pressure test, when applied to motor and aviation gasolines, exerts a profound influence on economics of natural gasoline manufacture. To some it may seem a far cry from vapor lock and motor fuel specifications to the profits of natural gasoline manufacture. But with up to date refineries producing enough butane to make 13-pound motor fuel the year round it is obvious that natural gas butane occupies a critical place in petroleum economics. Certainly natural gas butane is the most important aspect of our business as manufacturers of natural gasoline.

To the better understanding of this problem, the Natural Gasoline Association has contributed the Reid vapor pressure testing method. Although officially the method is limited to the testing of natural gasoline its use has been extended to motor fuel and aviation gasoline specifications and to motor fuel vapor lock investigations. There has been a very strong desire to officially enlarge the scope of the method to embrace the testing of motor fuels. But your technical committee, by virtue of experimental studies and as the result of practical experience, has held that the method as now written is not of sufficient accuracy when applied to motor fuels. Although the method as now written has proven to be extremely helpful, it is believed that these inaccuracies would react against the method if it were applied more authoritatively than at present.

This state of affairs continued for several years, until last November when A. S.T.M. Committee D-2 instructed its Subcommittee 22 to make whatever revisions were necessary in the method to make it applicable to motor fuels. This assignment was turned over to the technical committee which has been very actively correlating its knowledge since then. On December 31, 1934, a proposed revision of A.S.T.M. Method D 323-32T was submitted to Committee D-2 for consideration.

The essential features of the proposed revisions were:

1. Complete separation of sampling and testing. Samples must be obtained in containers other than the gasoline chamber of the bomb assembly.
2. Careful description of sampling procedures.
3. Careful description of technique of laboratory handling of samples.
4. Presaturation of samples with air by leaving 20 per cent outage in sample containers, cooling to ice bath temperatures, and agitation.
5. A more logical description of the procedure.
6. Better gauges.
7. More frequent checking of gauges.
8. More precise control of bath temperatures.
9. Air purging of Bourdon tubes.
10. Elimination of alternative procedures for sampling.

In the discussions aroused by this proposal, it developed that the California industry, and to some extent the remainder of the industry, could not approve the sampling procedure outlined because it failed to take into account the sampling difficulties associated with unrectified natural gasoline of high vapor pressures.

The present status is that unless a compromise is speedily effected among the several interests, it will be too late to secure A.S.T.M. approval for a motor fuel Reid vapor pressure method this year. The best compromise at present appears to be for all parties to agree to the following:

1. Let D 323-32T remain as it is with its scope limited to natural gasoline.
2. Adopt the proposed revision as another tentative A.S.T.M. standard but limiting its scope to motor fuel and aviation gasolines.
3. During the next year, establish the dividing line between the two methods.

With the refining and automotive industries more interested in light hydrocarbons than ever before it will be extremely unfortunate to let another year pass without a vapor pressure method, conveniently and accurately applicable to motor fuels.

Another problem which is being studied by your technical committee is the standardization of sampling methods for natural gasoline, particularly as related to testing methods. A subcommittee has very diligently applied itself to this subject. There is nothing definite to report at this time. The chief results to date have been to crystallize our ideas as to what fields in this broad subject actually need standardization. This work has been undertaken in conjunction with the A.P.I. standardization project.

These few paragraphs summarize the work of the technical committee during the past year and indicate the nature of the current projects before the committee. It is suggested that more of the technical problems of the industry should be referred to the committee. Among such problems may be enumerated the following:

1. A thorough study of the numerous recently proposed methods of testing natural gas for its natural gasoline content.
2. Closer co-operation with the California Natural Gasoline Association in its technical studies.
3. Improvements in testing methods related to fractionator and absorber efficiencies.
4. The value of volatility in motor fuels.
5. Automotive fuel systems.

*Report of Technical Committee of Natural Gasoline Association of America, and delivered before association's annual convention in Tulsa.

Gas Testing Committee to Study Charcoal Process

By E. C. LE FEVRE and R. E. BAKER

During the last year or two no unusual problems or subjects have come up for the attention of this committee. After this relatively short period of inactivity, however, the committee again appears to be confronted with an interesting assignment—the investigation of the reported improvements in the charcoal test method for the determination of gasoline contents of casinghead gas throughout the range normally encountered in the operation of gasoline plants.

Following the convention of the American Petroleum Institute, Dallas, November, 1934, George P. Bunn as chairman of the Gas Testing Committee of that organization, toward the end of January, informed this committee of the improved gas testing method which is now under investigation by the California Natural Gasoline Association, and which has been proposed to the American Petroleum Institute for study.

Coupled with the fact that the proposed improved test method calls for special apparatus which is not readily available, the limited time at our disposal has not permitted a thorough study of the method and a report for this meeting. This statement, consequently will have to be considered more in the light of a progress report.

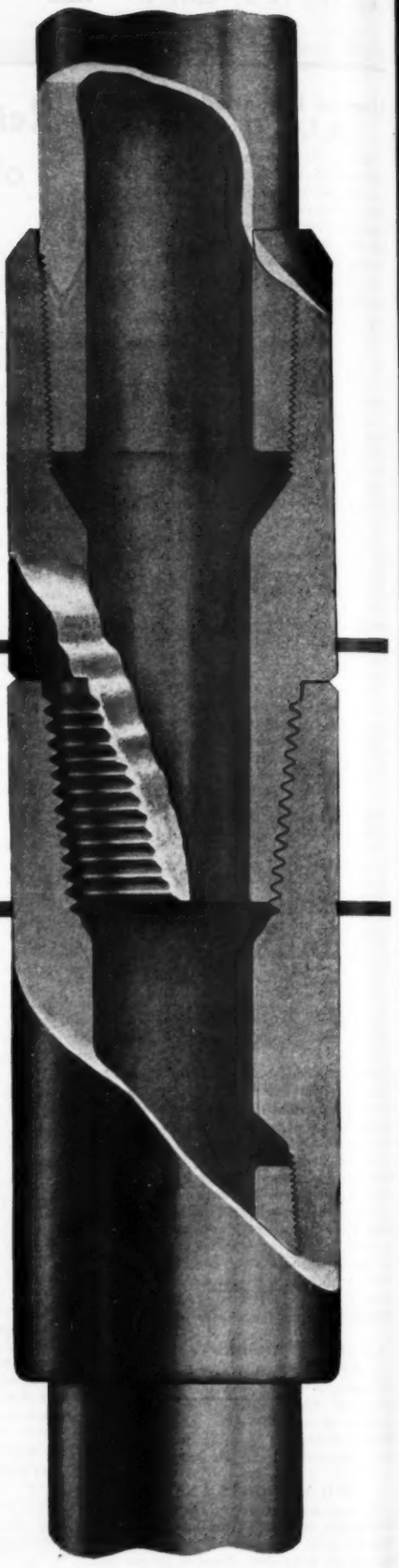
Quoting from Mr. Bunn's letter of January 29: "Our own subcommittee (i.e. AP.I.), on gas testing has recommended no standard adoptions in gas testing, pending a further study of this method. The chief recommendation for the new method seems to be its ability to supply, at normal expense, results proportionate to the actual amount of salable gasoline contained in all types of wet gases irrespective of composition. From results reported to your chairman, this implies that the method will work equally accurately throughout the range of content of all gases encountered, eliminating the undesirability of two or more methods required for different ranges of content. It requires a nomination of the kind of material to be produced in order to interpret results."

A report of Standard Oil Co. of California which describes, defines the apparatus, and submits results of a considerable number of tests, has been furnished this committee. With reference to this information, the A.P.I. committee expresses the hope that apparatus will be constructed by various individuals, and that each will run simultaneous tests on the same gas with the new method, and each of the following methods:

1. The A.G.A.-N.G.A. Standard Compression Test Method.
2. The A.G.A.-N.G.A. Standard Charcoal Test Method.
3. The present C.N.G.A. Standard Test Method.

With the foregoing from Mr. Bunn as a clear and comprehensive statement of the situation, this committee has met and made arrangements for the investigation of the merits of the improved test method, all toward the end that it may have at an early date, preferably before the May meeting of the American Petroleum Institute, Tulsa, the results of as many tests as possible, and a definite recommendation for the consideration and action of the board of directors of this association.

Excerpt of report of Gas Testing Committee of the Natural Gasoline Association of America, delivered before the association's annual convention, Tulsa.



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Thirteen Locations Staked in North Louisiana; Two Completions Made in Mississippi Area

By J. R. CRUMPTON
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., May 27.—Thirteen locations staked in the North Louisiana district during the week were mostly in proven or semiproven oil or gas fields, but among them were three wildcats and several other blocks in unexplored territory have been completed or being assembled. Only nine completions were reported in the North Louisiana and Arkansas districts consisting of six dry holes, two oil wells, and one gasser.

NORTH LOUISIANA

In Union Parish, Southern Production Co. has spudded and set 10-inch casing at 40 feet on its No. 1 W. E. Clark in Section 17-23-1e. The test is a few miles east of the old Oakland area which produced several small pumpers and resulted in a hot play in that territory back in 1924. The limited production in these wells came from around 2,250 feet. A short distance northeast of the small Holly Field, DeSoto Parish, C. T. Ruffin has derrick up on No. 1 Lee, in Section 33-14-13, on a block of 1,200 acres, contracted to drill to 3,000 feet. J. T. Reese's No. 1 Waskom, Section 30-19-16, will attempt to extend the Blanchard shallow gas production in Caddo Parish about 1½ miles northwest. Byrd & Harper, independent operators of Shreveport, have assembled a block of several thousand acres in the vicinity of the village of Bellevue in Bossier Parish. The acreage centers around Section 32-20-11, and is about 3 miles northwest of the Bellevue shallow field, recently reopened after being shut down for several years, which produces heavy oil from 300 to 450 feet from the Nacatoch sand. A block of 6,000 acres centering around Section 17-21-7, 2½ miles northeast of Homer in Claiborne Parish, is reported to have been completed by B. F. King and J. H. Lester. The drilling contract is reported to call for a 3,300-foot hole.

The Keatchie and Spring Ridge area in the southwestern part of Caddo Parish and the northwestern part of DeSoto Parish, continues to get a good play as a result of showings of oil and gas from two wildcats now testing. A new block of 4,500 acres is reported to have been assembled 2 miles east of Spring Ridge by Franklin D. Hyde for a 3,000-foot test. Considerable acreage has been leased in that area during the past two weeks, some on a straight commercial basis. The two wildcats now testing, A. D. King, trustee,'s No. 1 Sallie Roach, Section 4-14-16, Caddo Parish, and E. B. Bird and others' No. 1 A. D. Johns, Section 20-14-16, DeSoto Parish, are on a southwest line from the Hyde block, 5 and 8 miles, respectively. The King wildcat developed a small show of gas and eight fourbles of mud on drill stem test from 2,606-75 feet and is coring. The Bird test, which reported seven joints of 38 gravity oil a few weeks ago, used oil to test and is swabbing with no show at 2,630 feet. The show in this well was reported from 2,580 to 2,630 feet and 6-inch casing was set at 2,610 feet.

Catahoula Parish

A Catahoula Parish wildcat, George J. Phillipi's No. 2 Louisiana Central Lumber Co., Section 2-9-6e, tested an estimated flow of 500,000 feet of gas from 943 feet and is temporarily shut down awaiting orders. It is in an area where several gassers have been completed during the past few years, but abandoned because of salt water intrusion. Other North Louisiana wildcats follow: Bossier Parish, Plain Dealing Syndicate's No. 1 L. A. King, Section 36-23-13, drilling in chalk at 2,502 feet; Leonard Co.'s No. 1 Pearson, Section 22-21-14, west of the town of Benton and on the east side of Red River from Caddo production, is drilling in hard lime at 2,925 feet. De Soto Parish, E. L. Foster's No. 1 Youngblood, an old well drilling deeper from 1,502 feet, developed an estimated 1,000,000 feet of gas on drill stem test from 2,744-77 feet and arrangements are being made to set casing for further testing. A Morehouse Parish wildcat, Alex Rice, trustee's No. 1 Myers, Section 15-22-7, is coring for an expected sand at 2,935 feet. The test is northeast of gas production in the old Monroe Field and in the vicinity of a well drilled several years ago which reported a good show of oil from 2,940 feet.

Wildcats Dry

Included in the North Louisiana completions were two wildcats, both dry holes. M. V. Duncan and others' No. 2 Hutton, Section 4-18-7, in the northwestern part of Bienville Parish, was abandoned in salt water at 2,857 feet. This is the second test on a block of approximately 17,000 acres and was one-half mile south of the first well. The logs of the two wells check practically level on the Blossom farm from which formation production was expected. It is reported a seismographic crew will run a survey of the area before another test is started, but the present opinion of a consulting geologist is that there is a fault running northeast and southwest between the two tests drilled with a known salt dome to the south. If this theory is established, it is evident further tests will be drilled to the northeast or southwest. The second wildcat failure, W. T. Bell and others' No. 1 Bostick, Section 12-22-16, Caddo Parish, was abandoned as salt water after consistent testing at 2,785 feet. The test is north of the town of Vivian. Other North Louisiana completions follow: Caddo Parish, Blanchard area, Babare & M. Seigle's No. 1 Sharp, Section 10-18-16, dry at 912 feet; Grant Parish, C. & S. Oil Co.'s No. 1 Swope, Section 17-19-1e, dry at 1,618 feet; Sabine Parish, Many area, Monroe Production Co.'s No. 1 Bowman-Hicks, Section 3-7-12, pumping 280 bbls. after using acid at 2,790 feet; Union Parish, Southern Carbon Co.'s No. 67 feet, Section 5-20-4e, gauged 12,000,000 feet of gas with 848 pounds rock pressure from 2,140 feet.

ARKANSAS

Three completions, with no new operations, were reported from Arkansas. In the old Stephens area of Columbia County, Gold Oil Corp.'s No. 1 Wepfer, Section 24-15-20, encountered salt water and was abandoned at 1,465 feet. Larry Romine's No. 1 Nolte, Section 11-19-26, Lafayette County, was abandoned as dry at 3,516 feet. On the west side of the Rainbow Field, Union County, J. E. Crosbie, Inc.'s No. 1 H. D. Warren, Section 10-17-14, is flowing 250 bbls. of oil and 275 bbls. of salt water from 3,338 feet.

None of the wildcats developed anything of interest. H. L. Hunt's No. 15 E. F. Gregory, Section 10-17-14, Rainbow Field, tested 3,000 bbls. of salt water from 6,450 to 6,640 feet with the old total depth at 6,911 feet in rock salt. The hole has been plugged back to 3,478 feet and a final test will be made with pipe perforated at 3,450 feet. Gulf Refining Co.'s No. 49 Werner, Section 5-16-16, Smackover Field, is drilling in hard lime at 6,192 feet. North of Texarkana in Miller County, King Oil Corp.'s No. 1 E. G. Anderson, Section 16-14-27, was dry on drill stem test at 2,423 feet and is coring at 2,480 feet. Another wildcat test was on test in Lafayette County, but had practically barren results. Kamon & Neely's No. 1 Cockran, Section 26-19-25, tested dry but developed a small show of light oil at 3,455 feet and the crew is coring. In Grant County, Neill & Winters' No. 1 R. W. Cooper, Section 26-6-15, is coring in sandy shale at 1,872 feet.

MISSISSIPPI

Two completions were reported from Mississippi, one gas well in a proven field and one wildcat far removed from production. In the Rankin County area of the Jackson Field, Cleve Love and others' No. 1 Boehle, Section 18-5n-2e, gauged 35,600,000 feet of gas from 2,453 feet. Snow Black Petroleum Co.'s No. 1 Fox, Section 30-7n-12w, Jones County, was dry and abandoned at 4,300 feet.

A wildcat in Washington County, Mid-Continent Development Co.'s No. 1 Lee, Section 33-15n-8w, is drilling in sand at 2,006 feet. This well was formerly listed as Perkins & Dees. With the exception of two wells drilling in the Hinds County area of the Jackson Field, all other operations in this district were shut down during the week. In Lamar County, Alabama, De Soto Oil & Gas Corp.'s No. 1 Gardner, Section 22-15s-16w, is drilling at 4,259 feet, and in Houston County, Rice oil & Gas Co.'s No. 1 Oakley estate, Section 9-3n-29e, has resumed operations and drilling at 2,770 feet.

Estimated Production

Estimated daily gross production all companies week ending May 24:

NORTH LOUISIANA

Bellevue	700
Caddo Light	4,840
Caddo Heavy	2,145
Converse	1,210
Cotton Valley	450
De Soto and Red River	1,400
Elm Grove	365
Haynesville	3,515
Holly	155
Homer	2,700
Pleasant Hill	190
Sarepta-Carterville	530
Urania	3,090
Zwolle	1,870
Total	23,160

SOUTH ARKANSAS

Champagnolle	2,400
El Dorado	2,195
Lisbon	305
Miller County	1,735
Nevada	890
Smackover Light	2,300
Smackover Heavy	18,495
Stephens	620
Urbana	2,300
Total	31,140

Wildcat Operations in Louisiana-Arkansas

(Rotary operations unless otherwise designated)

NORTH LOUISIANA

AVOYELLES PARISH

Bell Oil Co.'s No. 2 Thompson-Kolts, 450 ft. S, 350 ft. E, NW cor. Sec. 11-2n-5e.
Partly R.U. and S.D.

Southern Star Pet. Co.'s No. 1 O. G. Boyette, Sec. 28-3-5e.
S.D. for high wtr. 3,875 ft.

BIENVILLE PARISH

M. V. Duncan et al's No. 2 Hutton, 200 ft. S, 300 ft. E, NW cor. NE SW Sec. 4-18-7.
S.W. and abd. 2,857 ft.

Saline Drlg. Co.'s No. 1 Pardee, Sec.27-14-6.
S.D. 3,819 ft.; steel line measurement.

BOSSIER PARISH

W. A. Kirkland's No. 1 Jarrett & McKeller, 330 ft. N and W, S cor. NW NW Sec. 3-21-13.
S.D. 2,020 ft.

Leonard Co.'s No. 1 Pearson, 250 ft. S and E of C Sec. 22-21-14.
Drlg. 2,925 ft.

Plain Dealing Synd.'s No. 1 L. A. King, 300 ft. S and E, NW cor. NE NE Sec. 36-23-13.
Drlg. 2,502 ft.

Richplane Oil Co.'s No. 1-A S. H. Bollinger, Sec. 22-22-13.
Set 10-in. 40 ft.

Scott & Howard's No. 1 Sherrill, Sec. 13-19-12.
Partly rigged up and S.D.

R. L. Skidmore et al's No. 1 Davis, Sec. 12-18-13.
S.D. 1,150 ft.

Triangle Drlg. Co.'s No. 1-A State of La., Sec. 23-17-12, 1,000 ft. E, 2,640 ft. S, NW cor.
Fishing for slip 3,478 ft.

United Gas Pub. Serv. Co.'s No. 1-A R. V. Kerr Unit, NE cor. Sec. 24-17-12.
Drlg. 4,173 ft.

CADDO PARISH

Alaska Oil Corp.'s No. 1 Dickerson, 150 ft. N and E, SW cor. NW NW.
S.D. 1,930 ft.

Nick Babare's No. 1 Gibbs, Sec. 16-20-15.
W.O.S.R. 2,265 ft.

J. Ed Bailey, tr.'s No. 1 Hartzo, NW cor. NE NW Sec. 28-22-16.
S.D. 1,236 ft.

W. T. Bell et al's No. 1 Bostick, 1,320 ft. E, 660 ft. N SW cor. Sec. 12-22-16.
S.W. and abd. 2,785 ft.

Cal-La. Devel. Co.'s No. 1 Glassell, NW NE Sec. 11-19-15.
Set 10-in. 40 ft.

Hillman et al's No. 1 J. S. Noel Est., NE NE Sec. 12-20-16.
Set 10-in. 21 ft.

A. D. King, tr.'s No. 1 Roach, 641 ft. E, 375 ft. N, SW cor. SE Sec. 4-14-16.
Tested show gas 2,675 ft.

Leonard Co.'s No. 1 Kuhn, C N½ NW SW Sec. 7-20-15.
Tested S.W. 852 ft.

Recovery Oil Co.'s No. 1 W. L. Sibley, Sec. 15-19-14.
Arranging to set csg. 2,448 ft.

A. C. Scott et al's No. 1 Noel Est., 330 ft. S and E, NW cor. Sec. 22-20-15.
W.O.S.R. 2,261 ft.

Shreveport Oil Corp.'s No. 5-B Muslow, 150 ft. S, 1,320 ft. E, NW cor. Sec. 9-20-1s.
S.D.; high wtr.; 2,167 ft.

Simplex Oil Co.'s No. 1 Keeth, 660 ft. N and E, SW cor. SE Sec. 18-20-14.
Drlg. 2,748 ft.

A. F. Tarver's No. 1 George, 330 ft. N and E, SW cor. NE NE Sec. 23-19-15.
Tested S.W. 2,458 ft.

Texas Co.'s No. 4 School fee, Sec. 16-20-15.
Set 6-in. 2,159 ft.

Texas Co.'s No. 2 Thigpen, 300 ft. S and E, C Sec. 15-20-1s.
Set 6-in. 2,182 ft.

C. A. Tooke's No. 1 Gibbs, NE SE Sec. 16-20-15.
Set 10-in. 40 ft.; drlg. 2,192 ft.

CALDWELL PARISH

Critchell & Woods' No. 1 Kraft, 230 ft. N and W, SE cor. NW NE Sec. 18-11-3e.
Drlg. 1,056 ft.

G. W. Zeigan et al's No. 1 La.-Central Lbr. Co., 175 ft. S and E, NW cor. SW SW Sec. 25-13-3e.
S.D. 200 ft.

CATAHOULA PARISH

Geo. J. Phillips' No. 1 La.-Central Lbr. Co., 127 ft. N, 2,490 ft. W, SE cor. Sec. 2-9-6e.
Tested; estimated 500,000 ft. gas, 943 ft.

CLAIBORNE PARISH

E. T. Oakes' No. 1 H. W. Patton Est., 660 ft. S and W, NE cor. Sec. 1-20-5w.
Partly rigged up and S.D.

DESOTO PARISH

E. B. Bird et al's No. 1 J. H. Johns, 330 ft. N and W, center Sec. 20-14-6.
Swbng. to test 2,630 ft.

W. T. Coleman's No. 1 Walker, 330 ft. N, 660 ft. W, SE cor. SE SW Sec. 18-12-11.
Rigging up.

DeSoto Pet. Co.'s No. 1 B. Y. Wemple, C S½ SE NE SW Sec. 14-12-11.
Arranging to set csg. 2,590 ft.

D. J. Flesh et al's No. 1 Farmer, 660 ft. S, 610 ft. E, NW cor. SE NE Sec. 14-12-13.
Coring 2,708 ft.

E. L. Foster's No. 1 Youngblood, Sec. 9-11-14.
Arranging to set csg. 2,860 ft.

P. G. Fraley et al's No. 1 G. R. Stell, 330 ft. S and W, NE cor. Sec. 5-12-16.
Rigging up.

Leslie Prod. Co.'s No. 1 Ramsey, 150 ft. N and W of C Sec. 36-11-11.
Set 10-in. 45 ft.

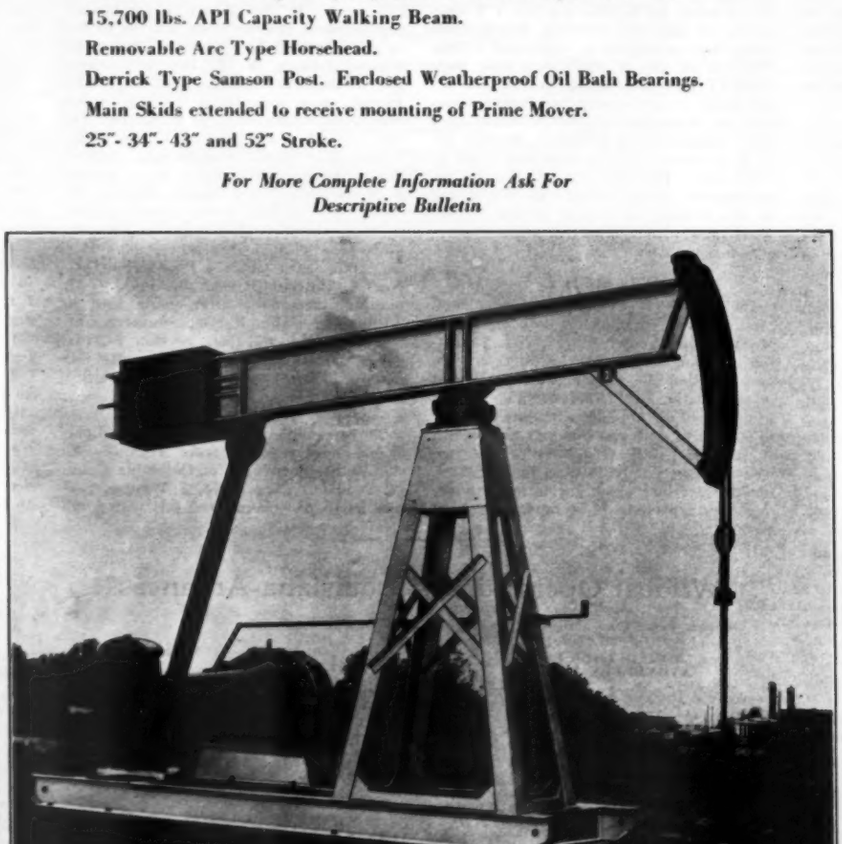
National Oils, Inc.'s No. 1 B. Y. Wemple, NW SW Sec. 14-12-11.

(Continued on Page 72)

Announcing No. 6363 Continental-Falk Portable Pumping Unit

100,000 inch lbs. Torque Capacity Double Reduction Symmetrical Unit.
15,700 lbs. API Capacity Walking Beam.
Removable Arc Type Horsehead.
Derrick Type Samson Post. Enclosed Weatherproof Oil Bath Bearings.
Main Skids extended to receive mounting of Prime Mover.
25"- 34"- 43" and 52" Stroke.

For More Complete Information Ask For Descriptive Bulletin



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xpect Heavy Consumption in Chicago With Coming of Good Weather

By SPECIAL CORRESPONDENT

HICAGO, May 27.—With the trade g for favorable weather conditions the Memorial Day holiday to per- the working off of stocks and the ing up with last year's May con- tion levels, the gasoline market has firm here in the last few days. Tone the market remains healthy, despite fact that the volume has been a bit appointing. The fourth week in May duced a few days typical of the sea- in the north central region, in con- st with the almost continuous spell bad weather earlier in the month.

The losses in gallonage in May, com- ed with a year ago, seem to have about balanced the gains in April, that this far the second quarter is out even in consumptive demand levels, th the like period of 1934.

Tank car gasoline prices have been vancing slowly but rather steadily over past month, and ruling quotations w are the best of the advance which s covered a period of about two and e-half months. So far as material origi- ting in the Mid-Continent is concerned, is northward territory is comparatively m. However, the eastern section of e central states — Ohio, Indiana asd ichigan—is feeling the effect of cheap irregularly priced gasoline from Penn- lvania, the Atlantic Seaboard, the Gulf d even to some slight effect, California, dging from current reports. This is ing reflected by the fact that tank gon-service station prices in Indiana d Michigan are not maintaining as eady and strong a condition as those in most of the other states of the central area in general.

Kerosene and Tractor Fuel

Because of long-continued rains and cloudy weather, field work has been delayed to such an extent that it now appears it will be well into June before all the spring field activities will be completed. This will extend the kerosene and tractor fuel business out much later than expected. At present these products are quite firm and in good demand, with stocks not very heavy.

Furnace Oil

An advance in tank wagon prices of No. 1 domestic fuel oil prices throughout Standard of Indiana territory was made effective May 28. This admittedly is late in the season for such a move, although a sidelight on it is the fact that the price basis of the leading middle western marketer for tank wagon tractor fuel is the tank car price for No. 1 straw fuel, a situation which has continued from a long time in the past. Distributors of tractor fuels probably will be greatly benefited by this move.

Coke

Coke is dull seasonally, with prices about unchanged as in recent weeks.

Lubricants

Lubricating oils now are showing some symptoms of betterment, although in a spotted and irregular fashion. Trade buying remains rather slow.

Fuels and Gas Oils

Heavy fuels and gas oils remain quiet, but in general they are fairly firm, especially gas oil. The industrial demand for fuels is quiet, and there is no indication as to just when it may be expected to expand.

Solvents

Solvents and naphthas are expected to show price improvement shortly, reflecting the recent substantial advance in gasoline. Some sellers already are trying to get somewhat higher prices. Some Michigan material is still creating considerable competition.

Wax

Wax seems dull, but prices on the various grades of the product now are holding their own. Buying is not very active.

Crude Oil Prices

(Continued from Page 30)

Humble Oil & Refining Co. and Texas Co. Effective September 20 in Salt Flat by Shell Petroleum Corp.

Rocky Mountain States

Iles light (Sept. 29, 1933)	$.96
Iles, heavy (Sept. 29, 1933)	.90
Florence, Colo. (June 17, 1933)	.80
Fort Collins and Wellington, Colo. (June 17)	(See Salt Creek prices)
Big Muddy (Sept. 29, 1933)	1.01
Frannie, light (May 1, 1934)	.70
Frannie, heavy (Sept. 29, 1933)	.62
Salt Creek and LaBarge (Sept. 29, 1933)	
See Stanolind Mid-Continent price schedule	
Grass Creek, light (Sept. 29, 1933)	1.18
Grass Creek, heavy (Sept. 29, 1933)	.62
Elk Basin (Sept. 29, 1933)	1.18
Rock Creek (Sept. 29, 1933)	1.02
Lance Creek (Dec. 16, 1932)	.92
Hudson (June 2, 1931)	.65
Lost Soldier (Sept. 30, 1933)	.88
Hamilton Dome, all grades (Feb. 16, 1935)	.57
Torchlight (Sept. 29, 1933)	1.18
Greybull (Sept. 29, 1933)	1.18
Pondera (Sept. 29, 1933)	1.25
Sunburst (Sept. 29, 1933)	1.35
Cat Creek, Montana	1.07
Hogback (Sept. 29, 1933)	1.11
Lea County, N. Mex. (Sept. 29, 1933)	.75
Maljamar (Sept. 29, 1933)	.70
Artesia-Jackson (Dec. 1, 1933)*	.75

Note—Salt Creek, Torchlight, Elk Basin, Grass Creek, Frannie, Greybull, Hogback and Iles by Stanolind Oil & Gas Co. Elk Basin, Grass Creek light, Big Muddy, Rock Creek and Sunburst by Ohio Oil Co. Lost Soldier posted by Producers & Refiners Corp. Artesia, Jackson and Maljamar posted by Continental Oil Co. Lea County, effective September 29, 1933, by Humble Oil & Refining Co. and other buyers; Fort Collins, Wellington, Orchard, Florence, Big Muddy, Cat Creek, Rattlesnake and Table Mesa by Continental Oil Co. Osage posted by Arro. Hamilton Dome, Wyo., by Stanolind Oil & Gas Co. Pondera, Mont., by Ohio Oil Co. (Stanolind Oil & Gas Co., effective January 1, 1935, posted $1 per barrel in Pondera.)

*Continental Oil Co.

North Louisiana and Arkansas

Smackover, Ark. (all grades)	$.70
Tullos, Urania, La. (Jan. 13, 1934)	.87
Nevada, Ark. (Sept. 29, 1933)	.60
East El Dorado (Sept. 29, 1933)	.70
Converse, La. (Mar. 17, 1934)	1.02
Elm Grove, La. (Sept. 29, 1933)	.75
Holly, La. (Nov. 17, 1934)	1.02
Pleasant Hill, La. (Mar. 17, 1934)	1.02
Zwolle, La. (Mar. 17, 1934)	1.02
Champagnolle, Ark. (Mar. 17, 1934)	.81
Lisbon, Ark. (Mar. 17, 1934)	1.02
Stephens, Ark. (Sept. 29, 1933)	.70
Urbana, Ark. (Mar. 17, 1934)	.60
Other fields	(See gravity table)

Note—Smackover: Effective September 29, 1933, Texas Co., Magnolia Petroleum Co., Standard of Louisiana, Louisiana Oil Refining Corp., Gulf Refining Co. and Phillips Petroleum Co. East El Dorado posted by Magnolia Petroleum Co. and Gulf Refining Co., Navada by Standard Oil Co. of Louisiana. Urbana posted by H. L. Hunt, Inc., and Louisiana Oil Refining Co. Converse, Holly, Zwolle and Urbana by Standard Oil Co. of Louisiana; Elm Grove by Simmons Oil & Refining Co.; Pleasant Hill by Standard Oil Co. and Magnolia Petroleum Co.; Champagnolle by Standard Oil Co. and Lion Oil & Refining Co.

Eastern States

TIDE WATER PIPE CO.
(Effective May 16, 1935)

Bradford, Pa.	$2.20
Allegany, N. Y.	2.20

SOUTH PENN OIL CO.
(Effective May 16, 1935)

Pennsylvania Grade Oil in National Transit Lines (Bradford Field)	$2.20
Pennsylvania Grade Oil in Southwest Pennsylvania Lines	1.92
Pennsylvania Grade Oil in Eureka Pipe Line lines	1.87
Pennsylvania Grade Oil in Buckeye Pipe Line lines	1.77
Corning Grade Oil in Buckeye Pipe Line Co.'s lines (Oct. 2, 1933)	1.87

PENNZOIL CO.
(Effective May 16, 1935)

Pennsylvania Grade Oil in National Transit Lines:	
Group A (Includes Cochran, Franklin, Hamilton and Doolittle districts.)	$2.17
Group B (Includes Titusville district.)	2.16
Group C (Includes Turkey and Tidioute districts.)	2.15
Group D (Includes Bear Creek and Porkey districts.)	2.14
Group E (Includes Eldeneau, Bull Creek, Rough Run, Carbon, Dipner, Bredlin, McJunkin, Jameson, Kennerdell, Emienton, Tiona, Lacey and Kinsua districts. Price depends on length of pipe line haul to plant at Oil City.	2.11

PURE OIL CO.
(Effective May 16, 1935)

Cabin Creek, W. Va.	$1.87
Bradford Hollow, W. Va.	1.87
Kelly Creek, W. Va.	1.87

Middle Western States

OHIO OIL CO.

Lima (Feb. 1, 1935)	$1.15
Illinois (Jan. 5, 1934)	1.13
Princeton, Ind. (Jan. 5, 1934)	1.13
Plymouth	Shut in
Midland, Mich. (Sept. 30, 1933)*	1.02
West Branch, Mich.	.86
Oceana, Mich. (Oct. 5, 1933)	.90
Somerset, Ky. (May 20, 1935)	1.13
Western Kentucky (May 22, 1935)	1.13

*Posted by Pure Oil Co. and Simrall Pipe Line Co. Producers Pipe Line Co. pays 5 cents per barrel over Pure Oil Co.'s posted prices. West Branch, Mich., posted by Simrall Pipe Line Co. Somerset, Ky., crude purchased by Ashland Refining Co., Ashland, Ky., and posted prices includes premium. Oceana posted by Old Dutch Refining Co. and Naph-Sol Refining Co.

Canada

Ontario (September 9, 1933):	
Petrolia*	$2.10
Oil Springs	2.17
Turner Valley (May 21, 1934):†	
Clear naphtha	$2.55
Discolored naphtha	2.27
Crude oil, 50 gravity	2.19
Crude oil, 45 to 49.9	2.07
Crude oil, 40 to 44.9	1.50

*Imperial Oil, Ltd. †Imperial Oil, Ltd., and Regal Oil & Refining Co.

Mexico

Panuco*	$1.01

*F.o.b. ship, based on April transactions and exclusive of production and export taxes and bar dues.

California Crude Oil Prices

STANDARD OIL CO. OF CALIFORNIA
(Effective September 6, 1933)

For current purchases of crude oil at the well (unless otherwise specified). (All gravities above those quoted take highest price offered in that field.)

Gravity—	Long Beach	Seal Beach, Alamitos Heights	Huntington Beach	Inglewood	Playa del Rey	Olinda, Brea Canyon	Athens-Rosecrans	Torrance	Richfield	Whittier, La Habra	Montebello	Santa Fe Springs	La Habra-Coyote	Midway-Sunset, Elk Hills, Buena Vista Hills	Lost Hills	Coalinga	Coyote
14-14.9	$.65	$.65	$.65	$.65	$.65	$.65	....	$.65	$.65	$.65	$.65	....	$.65	$.57	$.57	$.57	$.65
15-15.9	.65	.65	.69	.69	.66	.69	....	.66	.66	.65	.65	....	.65	....	....	....	.65
16-16.9	.66	.65	.72	.73	.69	.73	....	.69	.67	.68	.65	....	.65	....	....	....	.65
17-17.9	.69	.65	.75	.76	.73	.76	....	.73	.70	.71	.65	....	.68	....	....	....	.68
18-18.9	.72	.65	.78	.80	.76	.79	....	.75	.74	.74	.65	....	.71	.61	.61	.59	.71
19-19.9	.76	.66	.81	.83	.80	.82	....	.78	.78	.78	.65	....	.74	.64	.65	.62	.74
20-20.9	.78	.68	.83	.87	.83	.85	....	.81	.82	.81	.66	....	.78	.67	.69	.65	.78
21-21.9	.81	.72	.86	.90	.87	.88	....	.83	.85	.84	.69	$.72	.81	.70	.73	.68	.81
22-22.9	.84	.76	.89	.94	.90	.92	....	.85	.89	.87	.72	.76	.84	.73	.76	.72	.84
23-23.9	.88	.81	.92	.97	.94	.95	$.83	.89	.92	.90	.76	.79	.87	.77	.79	.75	.87
24-24.9	.91	.85	.95	1.01	.97	.98	.86	.92	.97	.92	.80	.83	.90	.81	.82	.78	.90
25-25.9	.94	.89	.98	....	1.00	1.01	.90	.95	1.00	....	.85	.87	.93	.85	.85	.81	.93
26-26.9	.97	.93	1.01	....	1.04	1.04	.94	.98	1.04	....	.89	.90	.96	.89	.88	....	.96
27-27.9	1.00	.98	1.04	....	....	1.07	.97	....	1.08	....	....	.94	.99	.93	.91	....	.99
28-28.9	1.02	1.02	1.07	....	....	1.10	1.01	....	1.11	....	....	.98	1.02	.97	.94	....	1.02
29-29.9	1.06	1.05	1.09	....	....	....	1.04	....	1.15	....	....	1.01	1.05	1.01	.97	....	1.06
30-30.9	1.09	1.10	1.12	....	....	....	1.08	....	....	....	....	1.05	1.09	1.05	1.00	....	1.09
31-31.9	....	....	....	....	....	....	1.12	....	....	....	....	1.08	1.13	1.09	....	....	1.12
32-32.9	....	....	....	....	....	....	1.15	....	....	....	....	1.12	1.15	1.13	....	....	1.15
33-33.9	....	....	....	....	....	....	....	....	....	....	....	1.16	1.18	1.17	....	....	1.18
34-34.9	....	....	....	....	....	....	....	....	....	....	....	1.19	1.21	....	....	....	1.21
35-35.9	....	....	....	....	....	....	....	....	....	....	....	1.22	....	....	....	....	....
36-36.9	....	....	....	....	....	....	....	....	....	....	....	1.26	....	....	....	....	....
37-37.9	....	....	....	....	....	....	....	....	....	....	....	1.30	....	....	....	....	....
38-38.9	....	....	....	....	....	....	....	....	....	....	....	1.34	....	....	....	....	....

Additional Standard Oil Quotations

Mountain View—Effective July 3, 1934, the following are the prices of the Standard Oil Co. of California for its current purchases of crude oil at the well in the Mountain View Field: 14 to 19.9 degrees, 67 cents; 20-20.9, 58 cents; 21-21.9, 59 cents; 22-22.9, 61 cents; 23-23.9, 63 cents; 24-24.9, 66 cents; 25-25.9, 69 cents; 26-26.9, 72 cents; 27-27.9, 75 cents, 28-28.9, 78 cents; 29-29.9, 81 cents; 30-30.9, 84 cents; 31-31.9, 87 cents; 32-32.9, 90 cents; 33 degrees and above, 93 cents.

Elwood Terrace—F.o.b. ship, 32 degrees, $1.03; 34 degrees, $1.06; 35-35.9, $1.09; 36-36.9, $1.12; 37 degrees and over, $1.15.

Newhall—14 degrees and over, 57 cents.

McKittrick and Kern River—14 degrees and over, 57 cents.

Wheeler Ridge—14 to 17.9 degrees, 57 cents; 18-18.9, 58 cents; 19-19.9, 61 cents; 20-20.9, 64 cents; 21-21.9, 67 cents; 22-22.9, 70 cents; 23-23.9, 73 cents; 24-24.9, 76 cents; 25 degrees and over, 79 cents.

Kettleman Hills—33-33.9 degrees, 93 cents; 34-34.9, 96 cents; 35-35.9, 99 cents; 36-36.9, $1.02; 37-37.9, $1.05; 38-38.9, $1.08; 39 degrees and over, $1.11.

The Texas Co. posted in Shiells Canyon, South Mountain and Santa Paula as follows: 14 to 17.9, 57 cents; 3 cents added for each degree up to and including 26-26.9 degrees at 84 cents; then 4 cents added for each degree up to and including 30 degrees and over at $1. Company posts Standard Oil Co.'s Montebello prices in Montebello and North Whittier, and posts Standard Oil Co. prices in Signal Hill, Alamitos Heights, Huntington Beach, Torrance, Richfield and Santa Fe Springs, all effective September 6.

General Petroleum Co. posts Standard Oil Co. prices in Athens, Rosecrans and Signal Hill; Alamitos Heights up to 26-26.9; Santa Fe Springs up to 35-35.9; Richfield up to 35-25.9; Bres Canyon and Olinda up to 25-25.9, and Torrance up to 25-25.9.

Union Oil Co., effective September 6, posts same price as Standard Oil Co. in all fields in which both purchases, excepting that in Athens-Rosecrans, Union Oil Co. posts 21-21.9, 72 cents, and 33--33.9, $1.13; 34-34.9, $1.21, and 35-35.9, $1.24.

Associated Oil Co., effective September 6, posted same prices for the same grades as Standard Oil Co. of California, excepting that in some fields its gravity scale stops as follows: Huntington Beach, 26 degrees and over; Seal Beach and Alamitos Heights, 24 degrees and over; Coyote Hills, 23 degrees and over; Richfield, 25 degrees and over; Torrance, 25 degrees and over; Inglewood, 24 degrees and over; Santa Fe Springs, 25 degrees and over; Midway-Sunset, Elk Hills, Buena Vista Hills, 30 degrees and over. Also Associated pays 52 cents for oil of 11 to 13.9 gravity in McKittrick, Kern Front, Kern River, Midway-Sunset, Elk Hills, Buena Vista Hills and Coalinga.

NEWS FOR PETROLEUM REFINERS

Experts to Address Gas Tax Conference in Tulsa

The North American Gasoline Tax Conference, meeting in Tulsa, June 7 and 8, will be addressed by Martin Allstedt and Robert E. Manning, tax experts assigned to the conference by the Bureau of Internal Revenue in Washington.

Other gasoline tax experts who will attend include: Roy H. Cherry, Missouri tax commissioner; S. W. Burr, New Mexico state auditor; A. W. Logan, director of inspections and registrations for Kansas; Earl R. Wiseman, commissioner of revenues for Arkansas; Baird H. Markham, director of the American Petroleum Institute; A. P. Delahunt, former gasoline commissioner for Pennsylvania; Glenn F. Wilyon, excise tax commissioner for Colorado; James Duce, inspector of oils for Colorado; H. C. Jones, internal revenue collector for Oklahoma; A. A. Hotchkiss, Topeka, Kans., and G. H. Sheppard, Texas comptroller.

The meeting will be directed by James McLaughlin, Trenton, N. J., president, and A. N. Bobbitt, Indianapolis, executive secretary.

Refinery Prices Lowest Commodity Index Reveals

Refinery prices of petroleum products strengthened generally during the month of March as shown by the Department of Labor report on Wholesale Commodity Prices. Gasoline prices made the most marked advances over February and over March, 1934.

The index number of petroleum products based on 1926 prices as 100 was 49.8 for March, 1935, as compared with the average index of 79.4 for all commodities. This was the lowest index of the 10 classifications listed. Metals and Metal Products showed the highest index of 85.7. The following is a price table of petroleum products for the month of March, 1935, as compared with February, 1935, and March, 1934:

	Average wholesale price		
Petroleum products—	Mar., 1935	Feb., 1935	Mar., 1934
Fuel oil, refinery:			
Oklahoma, per bbl.	.750	.750	.735
Pennsylvania, per gal.	.040	.038	.038
Gasoline, per gallon, refinery:			
Natural, Oklahoma	.021	.029	.017
California	.055	.055	.054
North Texas	.046	.041	.043
Oklahoma	.046	.044	.044
Pennsylvania	.047	.044	.046
Kerosene, refined, per gal:			
Standard, New York	.054	.053	.060
Water white, refinery	.050	.049	.048

ASSOCIATED ADDRESS SYSTEM

The most extensive public address system ever installed on the Pacific Coast, with volume sufficient to blanket an area 10 miles square, will be operated by the Associated Oil Co. during the California Pacific International Exposition which opens in San Diego May 29.

This system of sound amplification will be used for dissemination of information, announcements and musical programs for the 5,000,000 visitors expected at the exposition. It will directly contact every garden, exhibit palace, canyon and mesa in the 300-acre fair district of Balboa park.

According to B. I. Graves, vice president in charge of sales for Associated, there will be seven stations, with a total of 156 loud speakers, placed throughout the grounds.

ENGINEERS AGAINST ALKY-GAS

A warning to American farmers not to turn their backs on foreign trade under the false belief that chemistry will soon open up a new $5,000,000,000 market for their products through conversion of farm crops into industrial uses has been issued by the World Peace Foundation as the result of a survey conducted by it among leading chemical engineers.

The Foundation in recent weeks has been conducting studies as to the relationship between world trade and peace and between world trade and American prosperity. Its survey of the present possibilities of agricultural products in industry was undertaken following the recent Dearborn chemical conference, which implied that chemistry had solved the marketing problems of the farmer.

Karstedt Retires After 42 Years With Continental

Completing 42 years of service with the Continental Oil Co., E. S. Karstedt, vice president, has submitted his resigna-

E. S. KARSTEDT

tion, effective June 1. Although considered by his colleagues as too active for retirement, Mr. Karstedt expressed the belief that younger men should be given the chance to fill responsible positions such as the one he leaves. He plans to return to his home in Denver, Colo., which he left four years ago in coming to Ponca City, Okla.

No vice president has been named to succeed him, but his position as marketing head of the company will be assumed by H. J. Kennedy.

LICENSE STRATFORD PROCESS

The Standard Oil Co. of California has appointed the Stratford Development Corp. of Kansas City, Mo., as exclusive licensing agent, in all countries, of its low-temperature refining process.

This process, covering the acid treatment of distillates at controlled, reduced temperatures, is to be offered to the petroleum industry, along with the Stratford quick-contact, contactor-centrifuge process, in one license, thus making possible the use of either process in any form or any combination of the two, best suited to any individual treating problem.

PENN GRADE MEETINGS

A series of 13 marketing meetings in principal cities of the United States, has just been completed by the Pennsylvania Grade Crude Oil Association.

Association plans and objectives were outlined by Joseph E. Moorhead, executive secretary. The association's advertising program was outlined by George H. Sheldon of Hommann, Tarcher & Sheldon. Hamilton W. Smith, assistant secretary, dealt with sales promotion.

The association is going ahead aggressively to maintain the quality position of Pennsylvania motor oils. Well over 2,000 jobbers and their representatives were addressed at the dinner meetings. The next major event of the association's program is the annual meeting at State College, Pa., June 20 to 22, inclusive.

California Gasoline Sales Decline With Tax Increase

SACRAMENTO, Calif., May 27.—California gasoline taxes for April have reached a total of $3,663,976.11, or $20,139.92 more than the corresponding figure for the same month a year ago. This is a gain of one-half of 1 per cent.

During the first three months of this year sales taxes were 13.95 per cent more than for the corresponding period of last year. In these same months the gasoline tax showed a decrease of 1½ per cent. While the gasoline tax for April shows a slight increase, it must be apparent that motorists are not actually using as much gasoline as they did a year ago.

From these comparisons the inevitable conclusion seems to be that the major part of the gain in the sales tax is due to higher prices rather than to increased consumption. Consequently, unless the buying power advances along with the rise in prices, it is unsafe to assume that the yield from the sales tax will continue to increase in the future as rapidly as it has during the past few months.

Oil companies reporting sales of more than 1,000,000 gallons of gasoline for the past month are as follows:

Name—	Gallons actually sold	Net taxable gallonage
Associated Oil Co.	17,643,704	11,210,750
Caminol Co.	2,559,666	2,482,854
Estado Pet. Corp.	2,695,103	2,721,670
F. R. Long, Inc.	2,451,076	None
General Pet. Corp.	21,733,429	10,175,239
Macmillan Pet. Corp.	2,560,502	2,158,800
Western Oil & Ref. Co.	1,953,098	1,930,962
Gilmore Oil Co.	6,212,750	146,652
Hancock Oil Co.	2,992,974	2,956,978
Lomita Gasoline Co.	1,229,858	None
Los Nietos P. & R. Co.	2,191,459	2,821
Richfield Oil Co.	12,147,951	10,323,327
Mohawk Pet. Co.	3,076,252	2,604,166
Norwalk Co.	2,054,032	1,075,576
O. C. Field Gaso. Corp.	1,888,282	7,391
Olympic Ref. Co.	1,212,254	1,220,573
Petrol Corp.	1,257,745	1,190,933
R'o Grande Oil Co.	3,989,499	3,636,418
R. R. Bush Oil Co.	1,140,937	1,150,162
Seaside Oil Co.	3,112,796	1,702,756
Shell Oil Co.	27,148,510	12,173,819
Signal Oil & Gas Co.	1,240,879	None
Signal O. & G. of Calif.	4,693,180	None
Standard Gasoline Co.	2,266,057	None
Standard Oil of Calif.	44,725,284	21,749,127
St. Helens Pet. Co.	1,018,803	957,819
Sunset Oil Co.	3,346,385	None
Texas Co.	13,982,257	4,676,889
Union Oil Co.	14,890,984	11,881,063
W. States Gaso. Corp.	2,925,505	None
Wilshire Oil Co	4,236,594	4,372,445

STANDARD AWARDS BONUS

The Standard Oil Co. of New Jersey has awarded a 5 per cent bonus to the 6,000 refinery workers in its three New Jersey refineries at Bayonne, Linden and Jersey City. The bonus will apply to men earning less than $3,000 per year and is given because of the increased cost of living. The bonus is payable June 3.

Chain Store Tax in Iowa Causes Retail Withdrawals

CHICAGO, May 28.—Major companies are withdrawing from direct retail marketing operations in the second Middle Western state in the last 15 months. Standard Oil Co. (Indiana) and various other large distributors are abandoning retail sales activities in Iowa, following the recent passage of the State's drastic chain store tax law. Early in 1934, similar action was taken in Indiana.

Standard has had nearly 1,000 service stations in Iowa, of which about one-third have been company owned and operated. These will be leased within the next few weeks to individual operators. In addition, there are some hundreds of stations which have been leased by Standard from others and operated by agents. These will be turned back or leased to other parties.

Chain store tax legislation is being seriously considered in other states of the Middle West. The major companies' bulk and tank wagon business is not being affected. The announcement of the Standard Oil Co. (Indiana) states that it will be necessary for that company to drop 800 men from its station payrolls and that a proportionate number will be dropped among the administrative offices. It states further that to as great an extent as feasible present managers of stations will be offered the opportunity to lease the stations and operate them as dealers. An effort will be made to induce lessees to retain present helpers.

Notices are now being sent to employes to inform them of the regret with which the company is obliged to terminate their status and their participation in its annuity plan, death benefits plan, stock purchase plan, and other plans whose benefits are legally available only to those who have status as employes. As the current stock purchase plan is to terminate on June 30, the separated workers are being allowed to leave their investment in the plan until its termination so as to obtain the full returns. They have the option of withdrawing their deposits, with 5 per cent interest, if they prefer.

Retail Gasoline Prices Continue Steady Increase

Retail service station prices of gasoline which have followed a steady upward curve since November, now average 13.86 cents exclusive of tax. The average is computed from prices in 50 representative cities in the United States. A gain of nearly 1 cent has been made since January 1. The sharp upward trend since May 1 indicates that the average price may reach 14 by the end of the month. Refinery prices for gasoline have risen in proportion to the retail prices with a 1-cent rise over the January 1 price of regular grade in the Group 3 and Chicago market, and gains from one-fourth to seven-eighths in other districts.

NEW COMMITTEE PERSONNEL

Several changes have been announced by the Planning and Coordination Committee in the personnel of its subgroups, naming the following Mid-Continent men to new positions:

William F. Lowe, secretary of the Natural Gasoline Association of America, appointed to refinery subcommittee C. Ray Collins, independent operator; P. M. Miskell, Empire Oil & Refining Co.; C. M. Boggs, Kanotex Refining Co., and William F. Lowe to labor subcommittee F.

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McMullen County Wildcat Gets Good Show on Drill Stem Test; New Sand in Plymouth Pool

SAN ANTONIO, Tex., May 27.—The favorable showing of a wildcat test in the extreme southern part of McMullen County, that indicated the discovery of a new field by showing considerable oil on a drill stem test, and the apparent discovery of a new producing sand in the Plymouth Field in San Patricio County were the featured developments in the Southwest Texas district the past week.

Texio Oil Co.'s No. 1 Atkinson in the Martha J. Deen Survey, Section 13, cored saturated sand from 2,195-2,207 feet and on a 15-minute drill stem test showed 500 feet of pipe line oil. Casing has been cemented at the top of the oil sand and it is scheduled to be tested the first part of the week.

The well is located in McMullen County, approximately 4 miles north of the new Seven Sisters Field in Duval County, opened two weeks ago by Henderson and Harvey's No. 1 Chernosky which found production just below 2,200 feet. It is the general opinion that the test is in sand, just above the Government Wells horizon, which is the producing horizon in the majority of the fields in Duval County. The Illinois Petroleum Co. owns considerable interest in the test and controls extensive holdings around the test. It is reported that future operations in the area will be in charge of the company.

Three-quarters of a mile southwest of the discovery well in the Plymouth Field, San Patricio County, Heep Oil Co.'s No. 1-E Welder made a drill stem test in sand from 5,800-30 feet, the total depth, that showed several hundred feet of oil and some salt water, and is running casing to test. Its total depth is approximately 292 feet deeper than the Plymouth Oil Co.'s No. 1-C Welder, the discovery well that is producing from a 5,500-foot horizon. Plymouth Oil Co.'s No. 2-C Welder, about 1,320 feet east of the discovery, is drilling below 4,865 feet in shale. North of the discovery the same company's No. 3-C Welder is drilling in shale below 3,900 feet.

Three miles south of Mieleska in the G.H.&H. Survey, Live Oak County, Henderson Coquat's No. 1 Rex, a wildcat test, failed to develop production from the Pettus sand, topped at 4,371 feet and is coring for the Yegua sand below 4,600 feet. On a drill stem test made in the Pettus sand below 4,376 feet, it showed 50 feet of drilling fluid cut with oil, gas and salt water.

To Develop Large Block

Definite plans of developing the 30,000-acre block held in Live Oak County by the Holland Oil Co. and the Maradyn Oil Co. were announced during the week. Earl Calloway and others have made a deal with the two companies for a half interest in the block that is located southwest of the town of George West in the southern part of the county, and drilling operations on the three proposed tests announced last week are expected to get under way at once.

Location of the three tests are as follows: No. 1 W. R. Lyne is located in the C SW¼ of Section 74, in the M. M. Lyne Survey; No. 1 George West is to be drilled in the north corner of the Lot No. 122, Section 113, Subdivision "A" of the George West ranch; No. 1 George West is located in the C SE¼ of Section 255 in the B.S.&F. Survey. Since the showing being made in Texio Oil Co.'s No. 1 Atkinson, across the line in McMullen County, location for two more wildcat tests were announced. Three miles south of the town of Tilden, John O. Gibson made location for No. 1 Masur and McDowell in the NW cor. of Section 19 of the H.&T.B. Survey. Two miles northeast, Bussa Oil Co.'s No. 1 F. B. Horton is in the center of the east half of the northwest quarter of the south 640 acres, of the J. M. Jean Survey No. 29. Both tests are located on the southwest trend out of the Jacobs Field to the northeast and will be drilled to 2,000 feet unless commercial production is developed at shallower depths.

Production Disappointing

Although two of the tests being drilled in the McNeil Field, Live Oak County, have been completed for producers, production to date from the two tests has been rather small and has not come up to expectations. Lion Oil Co.'s No. 6 McNeil, 670 feet southeast of No. 1, in the N. Dobie Survey, topped the sand from 4,358-86 feet, total depth, and with 7-inch casing cemented at 4,357 feet was completed for an initial production of 6 bbls. of pipe line oil per hour through a 11/164-inch choke, with tubing pressure 1,450 pounds and shut-in casing pressure 1,500 pounds. The company's No. 7 McNeil, 600 feet from the southeast line of the J. Curry Survey, encountered sand from 4,401-10 feet, and with 7-inch casing cemented at 4,399 feet was completed for 3½ bbls. per hour flowing by heads. A low pressure separator is being installed and production is expected to be increased considerably after the installation.

Approximately 5 miles west in the Dinero Field, Smith and Story's No. 1 Dinero Townsite, a northwest offset to the operators' No. 1 Frederick, the discovery well in the Jane Curry Survey No. 8, was completed in sand from 5,206-16 feet and is reported to have made 40 bbls. in six hours accompanied by a high gas-oil ratio. It will probably be deepened in attempt to lower the high gas pressure.

Bridwell Oil Co.'s No. 2 Sutherland in the north end of the Hoffman gas field, which was completed last week as an oil well, started making approximately 75 per cent salt water from its total depth of 2,718 feet and has been plugged back to 2,710 feet. North of this test, Duval Oil Corp.'s No. 1-A Bishop Cattle Co. in Section 70, B.S.&F. Survey, is preparing to core for the sand below 2,700 feet. Due north of the discovery, Bridwell Oil Co.'s No. 3 Sutherland, 660 feet due north of No. 2 in Survey No. 122, is preparing to spud.

Carolina-Texas Field

In the Carolina-Texas gas field in Webb County, Carolina-Texas Oil Co.'s No. 11 Benavides, Block 12, Survey 683, has been completed for a gas well making 3,000,000 feet of gas, and an estimated 5 bbls. of oil per day at a depth of 4,993 feet. Considerable attention was attracted to the test several weeks ago when it cored saturated sand, first encountered in the Mount Selman formation at 4,974 feet. Northeast about 2 miles, attention is centered on Barnhart's No. 1 De La Garza in Survey No. 262 which has the appearance of making a producer, after being deepened from an old depth of 2,150 feet to 2,406 feet. Sand showing oil and gas was encountered from 2,397-2,406 feet and the operators were preparing to make a drill stem test.

Four and a half miles southwest of production in the Pearsall Field, Frio County, Amerada Petroleum Corp.'s No. 1 Smith cored sand with a show of oil from 4,015-22 feet and salt water sand from 4,022-43 feet, and is shut down at a total depth of 4,100 feet. At this depth it is several feet below the producing horizon found in other wells in the field and evidently defines production in this direction. While this test was looking discouraging, the company's No. 4 Halff and Oppenheimer was showing for a producer. Saturated sand was encountered from 3,922-34 feet and on the first hour's gauge it made 30 bbls. with production dropping to 17 bbls. the second hour. It is reported that the tubing will be pulled and the test carried deeper.

Morton and Downey's No. 1 Daskam, an interesting wildcat northeast of the Sam Fordyce Field in Hidalgo County, which has been watched with interest for the past two months, due to a reported showing of oil, has cemented 5-inch casing at 4,090 feet and is waiting for cement to set at a total depth of 4,114 feet. Location is Block 34, Porcion 45, in the Ancient Jurisdiction of Reynosa Survey. Across the line in Cameron County, another deep test is scheduled to get under way within the next 90 days when Union Sulphur Co. moves in on its block of 5,000 acres for a 8,500-foot test. The large block is located south of the Arroyo Colorado River and extends up stream to the mouth of the river.

Another important south extension to the Loma Novia Field in Duval County was registered by the completion of Hamill-Smith and Ogden's No. 1 M. C. Hubbard in Section 77, Morris and Cummings Survey. Saturated sand was encountered from 2,644-81 feet, total depth, and it was completed for an initial production of 8½ bbls. per hour, flowing through open tubing. Two other wells are due to be completed this week. Humble Oil & Refining Co.'s No. 3 Vela cored sand from 2,702-05 feet and is preparing to cement casing. The Texas Co.'s No. 4 Vela cored the sand from 2,728-35 feet and 7-inch casing has been cemented at 2,728 feet.

Wildcat Operations in Southwest Texas

Week Ending May 25

BANDERA COUNTY

Plateau Oil Co.'s No. 1 Garrison, G.C.&S.F. Sur. No. 506, 1,500 ft. from W and 2,970 ft. from N lines of survey.
Standing 3,409 ft.

Palm Winn Oil Co.'s No. 1 Watson, Sur. No. 71 (workover).
T.D. 1,700 ft.; reaming.

BASTROP COUNTY

Hatts & Jarnson's No. 1 Mrs. Anneta Harris, 160 ft. from NW line, 300 ft. from SW line of 55-ac. tract, Maxomillian Sur.
Rigging up.

Malone & Owens' No. 1 Spooner, 500 ft. from N line, 3,550 ft. from SW line of Leverenz Sur.
Drlg. 1,360 ft.

Marts & Beavens' No. 1 Miller, 235 ft. from NE line, 414 ft. from SE line of Blk. 22, Dykes Sur.
Abd. 3,180 ft.

BEE COUNTY

Dirks Bros. et al's (Daugherty et al) No. 1 Hicks, N 70 deg. 40 ft. W 975 ft. from E line, N 19 deg. 38 ft. E 1,361 ft. from S line, NW cor. Blk. 45, Uranga grant.
Drlg. 2,500 ft.

Dirks Bros.' No. 1 Miller, 330 ft. from N and E lines of tract, C. Rivas Sur.
Rigging up.

Firm Oil Co.'s No. 1 Copeland, 1,650 ft. from N line, 330 ft. from E line of lease, B. O. Hadley Sur.
S.D. 93 ft.

G. M. Church's No. 1 J. C. Woods, 330 ft. from N line, 330 ft. W of road, J. Ryan Sur.
Moving in material.

Humble O. & R. Co.'s No. 2 Thompson, 466 ft. SW of SE cor. of J. C. Wood tract, 466 ft. SW on line parallel to E line, Wm. Burke Sur.
Drlg. 5,730 ft.

Francis P. Hynes' No. 1 Theo. M. Plummer, 330 ft. from W line, 990 ft. from S line of Sec. 33, Theo. M. Plummer Subd.
Drlg. 1,550 ft.

Felmont Corp.'s No. 1 T. J. Ernest, 466 ft. from SE cor. of J. C. Madray 216-ac., thence 460 ft. NW along survey line, thence S of R/A 466 ft., Bee County School Sur.
T.D. 6,012 ft.; sand 5,730-32 ft.; running Schlumberger.

BEXAR COUNTY

Cherokee Drlg. Co.'s No. 1 Chapman, 3,100 ft. from S line, 3,200 ft. from E line, A. J. Leslie Sur.
S.D. 400 ft.

Jas. B. Cunningham's No. 1 L. F. Ridder, 950 ft. S of Nelson Road, 1,300 ft. from E line, Block 5,196, Sur. No. 58.
Drlg. 335 ft.

Jones & Kieffer's No. 1 LaGrane, NW cor. of tract, 210 ft. each way, F. Rolen Sur. No. 48.
T.D. 1,010 ft.; bailed some 38.3 gravity oil; S.D.

McPhee & Briggs' No. 1 F. Lamb, 9,200 ft. from S line, 800 ft. from W line of Sur. No. 3 (Manuel de Luna).
Drlg. 2,145 ft.

Noble & Akins' No. 1 DeVilbiss.
T.D. 2,222 ft.; having trouble with heaving sand; showing little oil and gas.

J. H. Parke's No. 1 B. McClowskey, 150 ft. from W line, 1,525 ft. from NE line of F. A. Desaque Sur.
S.D. 300 ft.

Carroll C. Raborn's No. 1 Claude McCauley, 150 ft. from N and NW lines of tract in Sec. 52, Wm. Harrison Sur.
Drlg. 210 ft.

C. C. Raborn's No. 1 A. B. Stephens, 1,630 ft. from N line, 1,540 ft. from W line of tract, P. B. Hayes Sur. No. 3.
Moving in rotary; T.D. 400 ft.; shale.

Rowan & Nichols Oil Co.'s No. 1 Zigmund, 2,250 ft. WE line, 1,750 ft. NS line, A. Deffenbaugh Sur.
Drlg. 1,145 ft.; sand; S.O. 947-57 ft.

GLANCO COUNTY

H. T. Roe and W. E. Nixon's No. 1 Polk Morrisey, 2,000 ft. from W line, 1,000 ft. out of SE cor., 1,600 ft. from N line of Thomas H. Webb Sur. No. 91.
Spudded.

CALDWELL COUNTY

Coffield & Lanning's No. 1 Franks, 150 ft. from N and E lines of S ½ of 131.6 acres, Edward Brown Sur.
Abd. 3,100 ft.

Exploration Co.'s (F. Meyers) No. 1 W. T. Mooney, 810 ft. from S line, 450 ft. from W line of 95-ac. tract, S. Seal Sur.
Shale 1,700 ft.

Ogden & Reed's No. 1 Mrs. H. Brewer, 1,000 ft. from NE line, 150 ft. from SE line of tract in Martinez Sur.
Drlg. 352 ft.

Ogden & Reed Oil Co.'s No. 1 J. A. Compton, 450 ft. NE of NW line, 150 ft. SE at right angles out of NW cor. of P. Martinez Sur.
Drlg. 1,665 ft.

DEWITT COUNTY

Stewart's No. 1 Kleberg, 680 ft. from W line and midway N and S lines of tract, Tommelson Sur.
210 ft.; shut down.

DUVAL COUNTY

Mills Bennett's No. 2 D.C.R.C., 1,200 ft. S of W cor. of Sur. 50, thence N 990 ft. in Sur. 258.
Drlg. 2,856 ft.; sand 1,562-68 ft.

Intrepid Oil Co.'s No. 2 Parr, 330 ft. from N and W lines of 80-ac. tract, Sur. 115.
Drlg. 4,700 ft.

Magnolia Pet. Co.'s No. 1 Bennett, 330 ft. from S and W lines of Sur. 441.
Abd. 3,716 ft.

J. J. O'Byrne's No. 1 Ball, 330 ft. from S and W lines of Tract 3, Santas Flores grant.
Rigging up.

Santa Clara Oil Co.'s No. 1 Wood-Welder, 330 ft. from NE cor. of NW¼ of Sur. 385.
S.D. 2,150 ft.

Texla Oil Co.'s No. 1 Hubbard, 990 ft. out of SW cor. of Sur. 84.
T.D. 2,803 ft.; I.P. 50 bbls. per day, on pump.

FAYETTE COUNTY

Ross Fenton's No. 1 Kasper (263-ac), 3,000 ft. from NE line, 1,280 ft. from SW line, of Thos. Green Sur. No. 28.
Checking titles.

FRIO COUNTY

W. T. Shoemaker's No. 1 M. Rocha, 150 ft. SW cor. of Carl Wenzel Sur. No. 139.
S.D. 3,742 ft.

GOLIAD COUNTY

Keystone Royalty Co.'s No. 1 M. Woods, SW part of county, 15,000 ft. from SW line, 5,000 ft. from NW line of J. Sherman Sur.
Drlg. 2,550 ft.

GONZALES COUNTY

Southwestern Synd., Ltd.'s No. 1 W. S. Atkinson, 2,954 ft. from N line, 1,034 ft. from E line of 185-ac. tract in S. Y. Reams Sur. No. 51.
Abd. 5,700 ft.

GUADALUPE COUNTY

Bob Gode et al's No. 1 Hicks, 1,320 ft. from E line, 150 ft. from S line of 189-ac. tract in Santo Y. Coy Sur.
Spudded.

(Continued on Page 46)

Ector County Completion Believed Best in Pool; World's Deepest Test May Be Abandoned

By L. E. BREDBERG
Fort Worth Bureau, The Oil and Gas Journal

FORT WORTH, Tex., May 27.—With only 2 feet of sandy-lime pay drilled Gulf Production Co.'s No. 1 Goldsmith, Ector County discovery in Section 10, Block 44, Township 1s, T.&P. Survey, on a 31-acre block, has come through as a better producer than any in the county. It made an initial flow of 891 bbls. in 24 hours from 4,170-72 feet, the oil testing 36.2 gravity and being almost sweet. It appears a strike of major importance. The company has been negotiating with the Atlantic Pipe Line Co. and Magnolia Pipe Line Co. for a connection, but to date no deal has been consummated. The former company has a trunk line from Winkler County to Midland, thence to the Gulf Coast within 7 miles of the discovery and Magnolia's trunk line to the same terminus is within 8 miles of the well. Gulf Pipe Line Co. has a trunk line 18 miles south, connected with wells in the Penn Pool. The latter company will no doubt lay a connecting line if neither of the other companies make connection.

Phillips Petroleum Co. has taken over an interest in the nine-section block of the Pure Oil Co., 1½ miles east of the Gulf-Goldsmith discovery and will sink two tests at once. An eighth overriding royalty was said to be the consideration given the Pure Oil Co. until the block is developed, then the companies to participate 50-50 in the production.

World's Deepest Test

The world's deepest test, Gulf Production Co.'s No. 103 McElroy, Section 197, Block F, on the west edge of Upton County, is preparing to abandon after running the Schlumberger at total depth of 12,786 feet, 1,409 feet deeper than the next deepest test, General Petroleum Corp.'s test in California. No. 103 McElroy swabbed sulphur water when tested after the lime softened and a showing of oil was reported, and the company decided to call it quits.

Ordovician Tests

John I. Moore and others' No. 1 McDowell, Section 22, Block 34, Township 2s, T.&P. Survey, Glasscock County, bottomed at 9,946 feet where it has been shut down for the past several weeks waiting on orders, was opened this week and made an estimated 50-bbl. head of oil. The oil had accumulated probably from saturated oil horizons logged at 9,484-9,520 feet, 9,594-9,600 feet and 9,633-55 feet. Some believe acidizing or shooting would make some kind of a producer and this may be done by the unit holders who have been considering drilling it for 10 days in further search of Ordovician production. It will probably be carried deeper then shot or acidized, or both.

Skelly Oil Co. and Utah Southern Oil Co. and others' No. 1-D Grayson-University, in Section 33, Block 8, Reagan County, about 7 miles south of the Big Lake Field, drilled to 9,967 feet in an unsuccessful try for Ordovician production, was plugged back to 3,100 feet and treated with 2,000 gallons of acid after shooting the casing with a perforating gun. It is to be tested from the upper pay horizon where there are several wells producing in this area.

Garza County

N. L. Richards' No. 1 Sullivan, in Section 3, Block 5, K. Aycock Survey, about 1½ miles south of Post, in Garza County, appears as a small discovery well in the making. It is drilling below 2,800 feet after striking oil at 2,815-33 feet and from 2,850-56 feet. Elevation is 2,534 feet. There is one small pool in this county, the Boren Pool, south and east, never reaching size to warrant a pipe line connection, the oil being shipped by tank cars. Production in that pool comes from pay around 2,450-2,550 feet, the oil testing 37 to 38 degrees.

McCulloch County

George Poulter and others registered a dry hole in McCulloch County this week in an effort to extend production on the south end of their block on which they have two gassers. Their No. 1 Dutton, in Section 109, 2½ miles south of their gassers, was abandoned at a total depth of 1,240 feet.

Sutton County

Paul C. Teas' No. 1 Mower, in Section 39, Block 5, T.W.&N.G. Survey, Sutton County, is shut down at 4,930 feet. After standing shut down for 21 days at a total depth of 4,757 feet it made from 2 to 5 gallons of oil, but showed no more oil upon deepening. It is to be abandoned.

Runnels County

B. Wolverton and George McCamey, the latter of Fort Worth, have taken a block 1½ miles southeast of Ballinger, in Runnels County and propose drilling a 4,000-foot test on the Willingham estate lands in the William Wolfgang Survey No. 425. The block is in and around Surveys 424, 425, and 426.

Reagan County Wildcat

Dobbs and others' No. 1 Friend, wildcat about 5 miles south of the town of Big Lake, in Reagan County, in Section 1, William Allen Survey, has a showing of oil from 2,330-2,400 feet in the lime and is preparing to acidize after drilling to 2,465 feet.

Ward County Outpost

Westexas Oil & Royalty Co.'s outpost test in Section 6, Block 16, University lands, between the company's producer to the north and production in the southern Ward County area to the south, is drilling at 2,575 feet in lime promising a considerable extension as it is carrying 2,500 feet of oil in the hole while drilling.

Howard County Extension

H. P. Slagel, trustee's No. 1 Foster, Section 43, Block 29, Township 1n, T.&P. Survey, 1 mile northwest of the Dodge-Denman Pool, eastern Howard County, pumped 48 bbls. of oil in 24 hours after acidizing. Bottom of the hole is 2,768 feet in lime. It was formerly drilled to 3,113 feet, but was plugged back to shut off water.

Taylor County Test

In the area where Clark and Lewis recently acidized an old abandoned test making it a producer, about 2½ miles south of Abilene, in Taylor County, Anderson and others have staked location 330 feet from the south and west lines of the east 30 acres of the NE Section 8, L. A. Lands, an east offset to the acidized discovery. A south offset is down 900 feet. It is being drilled by J. L. Skaggs of Mineral Wells, and J. T. Brewer of Longview. The discovery well had stood abandoned for several years. It came in making around 90 bbls. per day, but is now pumping considerably less.

Upton County Wildcat

Baldridge Oil Co.'s No. 1 Peck, in Section 41, Block 29, Township 4s, T.&P. Survey, northwestern Upton County wildcat, is expected to be abandoned at 4,806 feet in lime where it is shut down waiting on orders. Elevation is 2,890 feet. It topped the lime at 4,763 feet.

There were 14 locations staked in the West Texas district this week, with 12 completed. Two more wells were completed in the recently opened Howe area in Winkler County, one, Maxwell and others' No. 2 Daugherty, in Section 11, Block 26, P.S.L. Survey, proving another short extension north.

Ranger and Wichita Falls

Completions were curtailed to 29 this week in the Wichita Falls district and locations to around 30, principally due to high water.

Anzac Oil Corp. and M. G. Cheney of Coleman, president, have purchased Continental Oil Co.'s 36½ per cent interest in 2,040 acres operated jointly in the Overall unit southwest of Coleman, in Coleman County, and are working over No. 5 well to increase its production and have staked location for No. 11. The others holding interest in this unit are Stanolind Oil and Gas Co., 18 per cent, and Humble Oil & Refining Co., 9 per cent. There are 12 wells in the unit. The purchasers have also purchased Continental Oil Co.'s 50 per cent in certain other leases in this area.

D. R. Simms of San Antonio has purchased a 25 per cent interest in a 300-acre unit which contains five wells making gross production of 60 bbls. per day.

This pool was discovered in 1927 by M. G. Cheney and Continental Oil Co. The field is now making around 130 bbls. per day, producing from three sands. To date it has produced 950,000 bbls. Atlantic Crude Oil purchasing department is taking the oil. The purchasing company is to work over other wells.

Anzac Oil Corp. is to drill a wildcat in the D. Breeding Survey, about midway between its own production to the north and Magnolia Petroleum Co.s producing area to the south, about 11 miles north of Coleman. This test is to go to 3,500 feet to test the Ellenburger lime.

Production in the Wichita Falls district averaged 63,000 bbls. per day for the week.

Childress County Wildcat

The most interesting wildcat in the Panhandle district is to have plug drilled and test made to prove whether Childress County is to get its first oil production.

Alma Oil Co.'s No. 1 Lowe, in Section 417, W.&N.W. Survey, about 3 miles south of Kirkland in the extreme southeastern corner of the county, is still shut down at 5,653 feet after striking a good showing of oil and shutting down to set tubing. The test made several heads of oil between the tubing and casing, the latter being cemented at 5,630 feet and the former lowered to 5,644 feet. The oil tested 40 degrees. It is believed to be in the Simpson, member of the Ordovician. Major companies are watching the area but so far have refrained from purchasing, independent operators spending considerable cash, principally to the east extending into Hardeman County. Alma

(Continued on Page 43)

Wildcat Operations in West Texas

Week Ending May 25

ANDREWS COUNTY

Fuhrman Pet. Corp.'s No. 2 Ford, 440 ft. from S and 1,320 ft. from E, Sec. 16, Blk. A-42.
Drlg. 3,512 ft.

Honolulu & Llano Oil Co.'s No. 1-B Parker, 440 ft. from N and 1,650 ft. from E, Sec. 11, Blk. A-42.
Elev. 3,281 ft.; top Yates 3,135 ft.; drlg. 3,632 ft.

Humble Oil & Ref. Co.'s No. 4 Means, 1,982 ft. from N and 660 ft. from E, Sec. 12, Blk. A-35.
Rig.

Humble Oil & Ref. Co.'s No. 4 Means, 654 ft. from S and 1,997 ft. from W, Sec. 4, Blk. C-45.
Elev. 3,185 ft.; drlg. 4,030 ft.

Republic Prod. Co.'s No. 1 Boner-State, 2,200 ft. from S and 1,320 ft. from E, Sec. 25, Blk. A-43.
To set csg.; T.D. 1,735 ft.

J. W. Trippiehorn's No. 1 Ogden, 330 ft. from S and 2,310 ft. from W lines of Sec. 6, Blk. A-46, P.S.L. Sur.
Elev. 3,211 ft.; S.D. 111 ft.

Wahlenmaier et al's No. 1 Odessa Ranch Co., 1,320 ft. from N and E of Sec. 10, Blk. A-32, P.S.L. Sur.
Elev. 3,307 ft.; drlg. 2,300 ft.; top salt 1,975 ft.

Wahlenmaier et al's No. 1 Cox Estate, 1,320 ft. from N and W of Sec. 8, Blk. A-33. Location.

BREWSTER COUNTY

F. C. Dodson's No. 1 Texas American Syndicate, 660 ft. from N and E, Sec. 66, Blk. 10, G.H.&S.A. Sur.
S.D. 950 ft.

Joiner et al's No. 1 McIntyre, 353 ft. from S, 2,300 ft. from E of Sec. 21, Blk. 352, W. M. Mitchell Sur.
S.D. 2,150 ft.

King & Franklin's No. 1 Gage Est., C Sec. 138, Blk. 22, G.H.&S.A. Sur.
S.D. 1,195 ft.

G. H. Storey's No. 1 Wilson, 1,980 ft. from N and E lines of Sec. 3, Blk. 212, T.&St.L. Sur.
S.D. 1,140 ft.

S. G. Smith's No. 1 Decie, 2,490 ft. from S and E, Sec. 7, Blk. 1.
S.D. 950 ft.

COCHRAN COUNTY

Kelsey's No. 1 Slaughter, C Labour 34, League 150, R.C.S. Lands.
Derrick.

West Texas Development Co.'s No. 1 Slaughter, near C of Labour 53, League 149, Randall Co. School Lands.
Derrick.

COKE COUNTY

Haggerty et al's No. 1 Gaston, 340 ft. from S and 654 ft. from W, Sec. 11, Jos. Young Sur. (old well deepening).
S.D. 3,020 ft.

CRANE COUNTY

Cranfill Bros.' No. 1 Tubbs, 330 ft. from S and W of Sec. 11, Blk. B-27, P.S.L. Sur.
Elev. 2,536 ft.; top Yates 1,470 ft.; drlg. 2,610 ft.

Dobbs Oil Co.'s No. 1 J. Cowden et al, 330 ft. from S and E of N half, Sec. 38, Blk. 1, H.&T.C. Sur.
Rig.

Gulf Prod. Co.'s No. 10 Waddell, C NW ¼ Sec. 11, Blk. B-23.
Material.

Gulf Prod. Co.'s No. 1 Henderson, 1,313 ft. from S and 1,322 ft. from E, Sec. 3, Blk. B-23, P.S.L. Sur.
Elev. 2,778 ft.; drlg. 1,650 ft.

Gulf Prod. Co.'s No. 1 M. B. McKnight, 660 ft. from S and W, Sec. 9, Blk. B-21.
Elev. 2,679 ft.; drlg. 2,910 ft.

Gulf Prod. Co.'s No. 1 Waddell, C NW NW Sec. 4, Blk. B-27, P.S.L. Sur.
S.D. 4,595 ft.

Magnolia Pet. Co.'s No. 1 Edwards, 330 ft. from S and 1,650 ft. from E, Sec. 2, Blk. B-23.
Elev. 2,778 ft.; drlg. 1,015 ft.

CROCKETT COUNTY

Leslie-Hiller et al's No. 1 Todd, 1,200 ft. N and 330 ft. E, Sec. 26, Blk. WX, G.C.&S.F. Sur.
Fishing 715 ft.

Humble Oil & Ref. Co.'s No. 1 Couch, C NW Sec. 3, Blk. QR, G.C.&S.F. Sur.
Temporarily abnd. 1,581 ft.; elev. 2,538 ft.

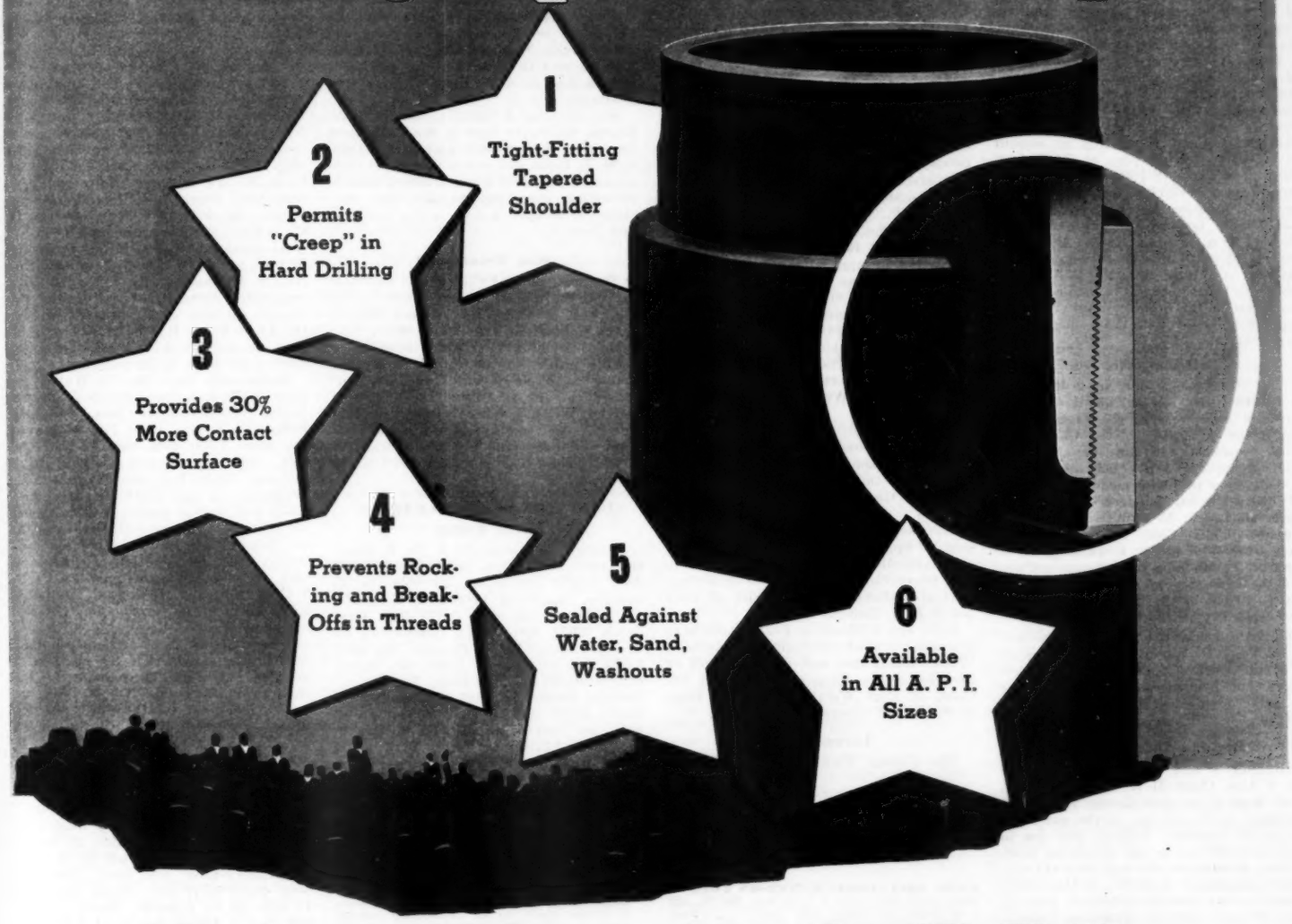
CULBERSON COUNTY

Anderson-Prichard Oil Corp., Magnolia Pet. Co. et al's No. 1 Borders, 1,255 ft. N and 2,305 ft. from W, Sec. 34, Blk. 69, P.S.L. Sur.
Drlg. 1,700 ft.

Miller Bros.' No. 1 fee, 1,900 ft. from N and 660 ft. from E line of Sec. 31, Blk. 97,

(Continued on Page 44)

ALL STAR FEATURES IN Pittsburgh Special Drill Pipe



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Rusk Pool, Cherokee County, May Get Well; Second Dry Hole in the Camp Hill Pool

By L. E. BREDBERG

DALLAS, Tex., May 27.—The Rusk Pool, Cherokee County, looks about due to receive its second producer, and the Camp Hill Pool, eastern Anderson County, has registered its second dry hole.

Wood, Young and others' No. 3 New Birmingham Development Co., about 800 feet southeast of the same operators' discovery, in the Levi Jordan Survey, about 6 miles southwest of Rusk, in Cherokee County, is waiting on cement to set after setting pipe at 5,165 feet. Total depth is 5,179 feet, oil sand having been logged at 5,174 feet. If this test proves a producer it will give the Scott and Turpin test on the Whiteman and Decker farm, in the J. H. Armstrong Survey, about 1 mile southeast, a better outlook. A former test, No. 2 New Birmingham Development Co., drilled to the southwest of the discovery, proved a dry hole. No. 3 test will have plug drilled this week.

Camp Hill

Gulf Production Co.'s No. 2 Robinson, in the D. Stilts Survey, about one-quarter of a mile west of the nearest Sub-Clarksville producer in the Camp Hill area, southeast of Palestine, Anderson County, appears a dry hole at present. A drill stem test was made from 5,235-64 feet. Fifteen hundred feet of salt water showed in 10 minutes. It is drilling below 5,270 feet. Sand was logged from 5,240-50 feet. It is running lower than No. 1 Maddox, in the same survey, and the nearest producer, to the east. It appeared dry in the Sub-Clarksville and also looks dry in the Woodbine sand.

Gulf Production Co. is down 3,486 feet in its No. 1 De Laney, about one-quarter of a mile south of its No. 1 Maddox producer, and it will be about a week before it gets down to the Sub-Clarksville horizon.

Wildcats in Anderson Horizon

Humphries and Luttes have spudded No. 1 Mrs. Clara McKee, in the W. F. Pool Survey, approximately 3½ miles southeast of Frankston, in the northeast corner of Anderson County, and are to drill to 4,500 feet or the Woodbine sand.

Hunt Production Co. and Sun Oil Co., which abandoned their No. 1 Mrs. Alice Scott, in the Joseph Crawford Survey, near Slocum, southern Anderson County, at a total depth of 5,485 feet, this week, have made location for No. 2 Scott, 30 feet north of No. 1. Derrick is up and drilling is to commence at once.

Long Lake Area

Tide Water Oil Co. and Texas Seaboard Oil Co. have completed No. 1 J. Smith, in the Adams Survey, about 2 miles north of the nearest gas producer as another gasser. This well was drilled to 5,465 feet, but was plugged back to 5,279 feet before completing in the upper gas sand. It missed oil production in the Woodbine. It adds considerable more gas producing acreage.

Tide Water Oil Co. and Texas Seaboard Oil Co.'s No. 21-A Wills, in the S. Edmondson Survey, Cayuga Field, northwest Anderson County, is down below 8,200 feet. This is a test in quest of Trinity sand production by far the deepest hole drilled in the East Texas district.

Blackwell Oil & Gas Co.'s No. 1 Malone, in the J. Balch Survey, 2½ miles southeast of the Van Field, Van Zandt County, was abandoned this week at a total depth of 3,891 feet.

Wildcat Locations

Yandle Rogers has moved in material on the J. M. Tidwell farm, 330 feet from the south and east lines of a 230-acre tract, 3 miles southwest of Mexia, in the Pedro Varella Survey, Limestone County. There is already one test drilling in this survey.

Smith and Herring are expected to start a Woodbine sand test on a block in the western part of Camp County, and southeast of Newsome, and Great States Oil Co. is contemplating drilling within 60 days on a block in Henderson County.

A test is to go down east of Big Hill in Limestone County soon. Fred Prince and W. F. Nenny have a block in the J. N. Taylor, J. D. Martinez, B. P. Buckner, and Beal and Graves Surveys, consisting of approximately 3,500 acres. Frank Bryan has taken 4,100 acres west and southwest of this block, in the Banks, Adair, Graves and others surveys.

W. Craddock and Mr. Davis, of Winnsboro, have assembled a block centering the northwest corner of the L. W. Gilliam Survey in northeastern Wood County, on which a Woodbine sand test will later be drilled.

A block is being assembled adjoining Texas Co.'s block on the south, for a test in Nacogdoches County. The new block is in the M. G. Herrera, P. Procella and George W. Ritter Survey No. 459.

Harrison and Abercrombie have assembled approximately 10,000 acres south of Clarksville near the county line in Red River County and are to drill their next test about 1¾ miles east of their No. 1 J. M. Roberts dry hole.

Dean and Atkisson of Fort Worth have assembled a block southwest of Yantis in Wood County and will probably drill or turn for a Woodbine sand test. Rio Oil Corp. of Fort Worth and B. B. Blair of Tulsa and others are interested.

Cayuga Field

The Cayuga Field in northwest Anderson County is to be given a 1,000-bbl. per day increase beginning June 1, raising the daily output to 4,000 bbls. to take care of the new production and future wells. This includes the north extension area in which several wells are drilling and in which there are now two producers.

Stanolind Oil & Gas Co. sold its J. W. Barton 48.76-acre lease in the T. Bristow Survey in the northern part of the field, to H. L. Hunt and others this week. Consideration carried a cash bonus plus a one-eighth overriding royalty. The purchaser is to spud a test on the tract before June 1.

East Texas Field

The Joe Long Drilling Co. has sold its W. W. Owens 20-acre tract in the southwest corner of the Herford Survey, Gregg County, to Travis and Weir.

Delta Drilling Co., which brought in a mile north extension well in Upshur County a couple of weeks ago, has purchased the R. A. Adkins 123-acre tract in the William King Survey, in that county. An eighth overriding out of seven-eighths of the production was the consideration. The extension well is on the lease.

EAST TEXAS COMPLETIONS

Gregg County

Amatex Petroleum Co.'s No. 6 Jones, top sand 3,671 feet, total depth 3,690 feet, initial production 30 bbls. in 25 minutes. Amerada Petroleum Co.'s No. 11 Bumpus, top sand 3,549 feet, total depth 3,579 feet, initial production 65 bbls. per hour; No. 12 Bumpus, top sand 3,575 feet, total depth 3,606 feet, initial production 60 bbls. per hour; No. 13 Continental Bank, top sand 3,573 feet, total depth 3,584 feet, initial production 56 bbls. per hour; No. 10 Killingsworth, top sand 3,578 feet, total depth 3,604 feet, initial production 69 bbls. per hour. Arkansas Fuel Oil Co.'s No. 6 Clemens, top sand 3,597 feet, total depth 3,622 feet, initial production 80 bbls. per hour; No. 10-C Lathrop, top sand 3,587 feet, total depth 3,612 feet, initial production 24 bbls. in 15 minutes; No. 12 Whittaker, top sand 3,522 feet, total depth 3,546 feet, initial production 26 bbls. in 15 minutes. Atlantic Oil Producing Co.'s No. 19 Duncan, top sand 3,590 feet, total depth 3,650 feet, initial production 130 bbls. per hour. Barnsdall and Sun Oil Co.'s No. 14 Bingham, top sand 3,533 feet, total depth 3,546 feet, initial production 65 bbls. per hour. Galvez Oil Co.'s No. 7 Shepherd, top sand 3,558 feet, total depth 3,578 feet, initial production 80 bbls. per hour. Lucey Petroleum Co.'s No. 8 McHaney-Loeb, top sand 3,523 feet, total depth 3,570 feet, initial production 30 bbls. in 30 minutes. Midfield Oil Co.'s No. 5 Rodden, top sand 3,576 feet, total depth 3,580 feet, initial production 20 bbls. in 30 minutes.

Nathan Oil Co.'s No. 14 Walker, top sand 3,572 feet, total depth 3,573 feet, initial production 70 bbls. per hour. Selby Oil & Gas Co.'s No. 4 Snavely, top sand 3,550 feet, total depth 3,561 feet, initial production 27 bbls. in 30 minutes. Shell Petroleum Corp.'s No. 2 Williams, top sand 3,518 feet, total depth 3,558 feet, initial production 35 bbls. in 35 minutes. Snowden-McSweeney's No. 10 Bonner, top sand 3,609 feet, total depth 3,619 feet, initial production 65 bbls. per hour. Washington Oil Co.'s No. 8 Cobb, top sand 3,565 feet, total depth 3,575 feet, initial production 120 bbls. per hour. Weaver, Receiver's No. 2 Doby, top sand 3,509 feet, total depth 3,525 feet, initial production 30 bbls. in 25 minutes through three-quarters inch choke. Whittington's No. 5 Boyd, top sand 3,565 feet, total depth 3,604 feet, initial production 40 bbls. in 30 minutes. Yount Lee Oil Co.'s No. 7 Tuttle, top sand 3,560 feet, total depth 3,681 feet, initial production 52 bbls. per hour through eleven-sixteenths inch choke.

American-Liberty Oil Co.'s No. 5 Elder, top sand 3,539 feet, total depth 3,578 feet, initial production 20 bbls. in 20 minutes. Arkansas Fuel Oil Co.'s No. 21 Hughey-Ross, top sand 3,552 feet, total depth 3,579 feet, initial production 17 bbls. in 15 minutes. Beard and others' No. 1 Elder, top sand 3,519 feet, total depth 3,552 feet, initial production 20 bbls. per hour, pumping. Byrd and Frost's No. 1 Holt, top sand 3,636 feet, total depth 3,645 feet, initial production 40 bbls. in 30 minutes. Galvez Oil Co.'s No. 3 Alexander, top sand 3,543 feet, initial production 20 bbls. in two hours, pumping. Magnolia Petroleum Co.'s No. 2 Prothro, top sand 3,633 feet, total depth 3,640 feet, initial production 84 bbls. per hour. Small's No. 1 Lockhart, top sand 3,695 feet, total depth 3,703 feet, initial production 30 bbls. in 15 minutes. Texas Co.'s No. 27 Elder, top sand 3,622 feet, total depth 3,650 feet, initial production 50 bbls. per hour. Tide Water Oil Co.'s No. 12 Strong, top sand 3,614 feet, total depth 3,624 feet, initial production 10 bbls. in 10 minutes.

Rusk County

Gulf Production Co.'s No. 14 Jernigan, top sand 3,654 feet, total depth 3,664 feet, initial production 64 bbls. per hour through three-quarters inch choke. Humble Oil & Refining Co.'s No. 33 Peterson, top sand 3,625 feet, total depth 3,671 feet, initial production 80 bbls. per hour. Sinclair Prairie Oil Co.'s No. 11-B Kennedy, top sand 3,607 feet, total depth 3,670 feet, initial production 25 bbls. per hour. Tide Water Oil Co.'s No. 10-B

East Central Texas Wildcats

Week Ending May 25

CAMP HILL AREA—ANDERSON COUNTY

Gulf Prod. Co.'s No. 1 DeLaney, 200 ft. out of most northerly NW cor. of 173.2-ac. tract; elevation 573 ft.; P. Martin Sur. Drlg. 1,126 ft.

Gulf Prod. Co.'s No. 1 Southern Pine Lumber Co., 330 ft. out of SE cor., H. Main Sur. Drlg. 1,242 ft.

Gulf Prod. Co.'s No. 2 W. Robinson, 330 ft. from S and 330 ft. from E of 100-ac. tract. 50 ft. N of No. 1. D. Stilts Sur. Top Pecan Gap 3,982-4,276 ft.; T.D. 5,246 ft.; testing.

CAYUGA AREA—ANDERSON COUNTY

Hunt and Sun Oil Co.'s No. 2 Alice Scott, 30 ft. N of No. 1, James Crawford Sur. Derrick.

J. W. Luttes' No. 1 C. McKee, 2,640 ft. from N line of lease and survey and 330 ft. from W line of McKey 800-ac. tract. Derrick.

Tide Water Oil Co. et al's No. 21-A Wells, 4,079 ft. N and 2,322 ft. W of lease, S. Edmondson Sur. (Trinity test). Drlg. 8,170 ft.

LONG LAKE AREA—ANDERSON COUNTY

Tide Water Oil Co. et al's No. 1 Shaw and Kern, 1,400 ft. from S and 2,333 ft. from E line, in D. Parker Sur. Material.

BOWIE COUNTY

Tex-Ark. Oil Co.'s No. 1 Hamilton Estate, 600 ft. E and 350 ft. N lines, J. Milan Sur., 4 miles S of Red River. S.D. 1,940 ft.

CHEROKEE COUNTY

H. A. Baker et al's No. 1 T. Smith, 630 ft. S and 660 ft. W of SW cor. of W. A. Newton's 240-ac. tract, 2½ miles N of Jacksonville, J. Pineda Sur. Derrick.

Scott & Turpin's No. 1 Whiteman & Decker, 450 ft. N and 150 ft. W, J. H. Armstrong Sur. Derrick.

Jacksonville O. & G. Co.'s No. 1 H. D. Henderson, 660 ft. from N and W lines of 40-ac. tract out of Tankersley 104-ac. tract, 5 miles NE of Jacksonville, J. Pineda Sur. S.D. 693 ft.

Wilson Stubbs Oil Co.'s No. 1 Rowborts, 450 ft. from S line, 150 ft. from W line of 100-ac. tract, 2 miles SW of Jacksonville, J. D. Wolfin Sur. S.D. 1,553 ft.

T. J. Woods et al's No. 2 New Birmingham Dev. Co., 150 ft. out of SE cor. of 160-ac. tract, 310 ft. SE of No. 1, L. Jordan Sur. Elev. 478 ft.; T.D. 5,179 ft.; top sand 5,-175 ft.; Austin 4,940-5,175 ft.; recovered oil sand; to set csg.

ELLIS COUNTY

Murphee & Coker's No. 1 Coker, 2,900 varas along S line of grant from river and 1,-700 varas N at R/A, R. De La Pena Sur. S.D. 1,544 ft.

FANNIN COUNTY

B. F. Allen's No. 1-B Argo, center of 16½-ac. tract in J. G. Swisher Sur., 1 mile S of Ector. Derrick.

Keen et al's No. 1 R. L. and W. M. Kelley, 660 ft. from E and 460 ft. W, E. Johnson Sur., 3 miles W of Ladonia. Derrick.

FREESTONE COUNTY

Hoover et al's No. 1 McFall, 150 ft. S and W lines, S. Garrison Sur., E of Mexia. Location.

J. E. Milburn's No. 1 S. E. McShan, 4,000 ft. NW and 5,000 ft. NE of tract, 3 miles SE of Donie, G. Diaz Sur. S.D. 270 ft.

GREGG COUNTY

O. T. Clark's No. 1 Williams, 2,100 ft. from S and 2,400 ft. from W of D. Hill Sur., 3 miles NE of Longview. S.D. 3,771 ft.

(Continued on Page 46)

Bean, top sand 3,562 feet, total depth 3,634 feet, initial production 100 bbls. per hour. Wooley and Gensberg's No. 1 Roberson, top sand 3,618 feet, total depth 3,683 feet, initial production 15 bbls. per hour. Amerada Petroleum Corp.'s No. 21 Stovall, top sand 3,640 feet, total depth 3,666 feet, initial production 60 bbls. per hour. H. B. W. Oil Co.'s No. 3 Stroude, top sand 3,557 feet, total depth 3,600 feet, initial production 10 bbls. per hour, swabbing.

Humble Oil & Refining Co.'s No. 10-B Barksdale, top sand 3,538 feet, total depth 3,644 feet, initial production 20 bbls. per day, pumping; No. 39-A Plowman, top sand 3,674 feet, total depth 3,719 feet, initial production 90 bbls. per hour; No. 47 Price, top sand 3,730 feet, total depth 3,800 feet, initial production 40 bbls. per hour. Illinois Oil Co.'s No. 12 Mayfield, top sand 3,726 feet, total depth 3,729 feet, initial production 80 bbls. per hour. Magnolia Petroleum Co.'s No. 5 Barksdale, top sand 3,683 feet, total depth 3,752 feet, initial production 75 bbls. per hour. Octo Oil Co.'s No. 2 Cooper, top sand 3,535 feet, total depth 3,580 feet, initial production 36 bbls. in three hours, pumping; No. 6 Stroud, top sand 3,541 feet, total depth 3,582 feet, initial production 20 bbls. per hour, pumping. Rodgers' No. 3 Deason, top sand 3,688 feet, total depth 3,775 feet, initial production 32 bbls. in 30 minutes. Button and Hawkins' No. 2 Smith, top sand 3,587 feet, total depth 3,645 feet, initial production 20 bbls. per hour, pumping. Turman Oil Co.'s No. 5 Young, top sand 3,667 feet, total depth 3,705 feet, initial production 35 bbls. in 30 minutes.

Smith County

Colony Oil Co.'s No. 2 Wright, top sand 3,631 feet, total depth 3,691 feet, initial production 65 bbls. per hour. Sun Oil Co.'s No. 12-B Pace, top sand 3,797 feet, initial production 40 bbls. per hour. Wheelis Oil Corp.'s No. 5 Patterson, top sand 3,707 feet, total depth 3,708 feet, initial production 20 bbls. per hour through three-quarters inch choke. Illinois Oil Co.'s No. 24 Mayfield, top sand 3,812 feet, total depth 3,813 feet, initial production 120 bbls. in two hours.

Upshur County

Fla-Tex Oil Co.'s No. 5 Jones, top sand 3,759 feet, total depth 3,784 feet, plugged back to 3,771 feet, initial production 20 bbls. in 25 minutes. Humble Oil & Refining Co.'s No. 8 Edward, top sand 3,585 feet, total depth 3,604 feet, initial production 64 bbls. per hour. McGowan and others' No. 4 O'Byrne, top sand 3,709 feet, total depth 3,716 feet, initial production 20 bbls. per hour. Sanford and others' No. 1 Edward Church, top sand 3,621 feet, total depth 3,644 feet, initial production 75 bbls. per hour. Sklar Oil Co.'s No. 1 O'Byrne, top sand 3,855 feet, total depth 3,857 feet, initial production 50 bbls. per hour. Stanolind and Falcon Oil Co.'s No. 1 Williams, top sand 3,612 feet, total depth 3,631 feet, initial production 20 bbls. in 14 minutes.

Anderson County—Long Lake Area

Tide Water Oil Co. and Texas Seaboard Oil Co.'s No. 1 Smith, total depth 5,279 feet, gas well, no gauge.

Wildcat

Hunt Production Co. and Sun Oil Co.'s No. 1 Alice Scott, dry and abandoned 5,485 feet.

Cayuga Area

Tide Water Oil Co. and Texas Seaboard Oil Co.'s No. 2-C Wills, total depth 4,086 feet, initial production 75 bbls. in 20 hours through seven-sixty-fourths inch choke.

Rains County

J. K. Wadley's No. 1 Jones, dry and abandoned 4,632 feet.

Van Zandt County

Pure Oil Co.'s No. 3 Gilbert, total depth 2,958 feet, initial production 12 bbls. per hour. Blackwell Oil & Gas Co.'s No. 1 Malone, dry and abandoned 3,891 feet.

West Texas Fields

(Continued from Page 40)

Oil Co. holds a block of 13,000 acres around the well.

There were 12 locations staked in the district during the week with 12 tests completed.

The Railroad Commission has issued orders reducing the potentials of all wells in the Panhandle district according to recommendations made by engineers. Operators have agreed to reduce all wells with potentials of 500 bbls. or less, 12½ per cent of their present potentials; wells with potentials of 3,000 bbls. or more to 50 per cent; wells with potentials between 500 and 3,000 bbls. per day reduced in direct proportion with the reduction as set forth. The potential of the field is 352,243 bbls. from 2,322 producing wells in Carson, Gray, Hutchinson and Wheeler Counties. Of this number 930 are marginal wells capable of producing 35,826 bbls. per day. The daily allowable is 58,800 bbls.

NORTH TEXAS COMPLETIONS

Archer County

O. T. Anderson Oil Co.'s No. 10 William Justice, top pay 1,077 feet, total depth 1,085½ feet, initial production 45 bbls. per day. L. T. Burns' No. 1 E. H. Albers, top pay 1,236 feet, total depth 1,255 feet, initial production 150 bbls. per day; No. 2 W. D. Pace, total depth 1,482 feet, dry and abandoned. Continental Oil Co.'s No. 18-B Falls, top pay 1,108 feet, total depth 1,126 feet, initial production 93 bbls. of oil in 24 hours, swabbing; No. 12-D Falls, top pay 1,068 feet, total depth 1,087 feet, initial production 84 bbls. of oil in 24 hours, pumping; No. 11-E Falls, top pay 1,095 feet, total depth 1,109 feet, initial production 56 bbls. of oil in 24 hours, pumping; No. 12-E Falls, total depth 1,108 feet, dry and abandoned. F.H.E. Oil Corp.'s No. 3 Brazina and others, top pay 1,425 feet, total depth 1,429 feet, initial production 125 bbls. per day; No. 8 Brazina and others, top pay 1,434 feet, total depth 1,441 feet, plugged back to 1,439 feet, initial production 212 bbls. per day, flowing. Milroy Production Co.'s No. 5 H. O. Prideaux, total depth 680 feet, dry and abandoned. Perkins and Cullum's No. 167 Falls, top pay 1,188 feet, total depth 1,204 feet, initial production 150 bbls. per day; No. 169 Falls, top pay 1,188 feet, total depth 1,205 feet, initial production estimated at 175 bbls. per day; No. 173 Falls, top pay 1,142 feet, total depth 1,167 feet, initial production 75 bbls. per day; No. 175 Falls, top pay 1,189 feet, total depth 1,205 feet, initial production 70 bbls. per day. R. O. Rogers and others' No. 2 Darilek, top pay 1,435 feet, total depth 1,444 feet, initial production 20 bbls. per day. Texas Co.'s No. 1 Moore and others, total depth 1,602 feet, dry and abandoned.

Baylor County

W. N. Alexander and others' No. 3 Portwood, total depth 1,490 feet, dry and abandoned.

Clay County

Taylor and Davis' No. 1 J. P. Boddy, total depth 369 feet, dry and abandoned.

Jack County

Barrett Thomas' No. 1 J. W. Maxey, total depth 600 feet, dry and abandoned.

Montague County

Benton and Holmes and others' No. 1 D. H. Reed, total depth 2,984 feet, dry and abandoned.

Wichita County

Bridwell and Mayfield's No. 5 Waggoner Brothers, top pay 1,400 feet, total depth 1,415 feet, initial production 35 bbls. per day. Golding and Cochran's No. 17-C Waggoner Brothers (old well supposed to have been worked over but was not), total depth 1,895 feet, dry and abandoned. J. S. Smith and others' No. 30 C. Birk, top pay 273 feet, total depth 283 feet, initial production 4 bbls. per day. Texas Co.'s No. 22 Allen and Kemp, top pay 454 feet, total depth 460 feet, initial production 1 bbl. of oil and 1 bbl. of water per day.

Wilbarger County

Riner and Massie and others' No. 10-A Waggoner estate, top pay 1,865 feet, total depth 1,877 feet, initial production 313 bbls. per day.

Young County

S. D. Glover's No. 17 C. W. Johnson, top pay 505 feet, total depth 520 feet, initial production 4 bbls. per day. W. J. Grisham and others' No. 1 T. J. Routon, total depth 766 feet, dry and abandoned. Petroleum Producers Co.'s No. 1 G. B. Hamilton estate, total depth 930 feet, dry and abandoned. D. M. Knox and others' No. 1 J. S. Burkett, top pay 3,825 feet, total depth 3,925 feet, initial production 50 bbls. per day.

COMPLETIONS IN WEST TEXAS

Ector County

Gulf Production Co.'s No. 1 Goldsmith, top lime 2,800 feet, gas pay 3,970-4,172 feet, main pay 4,170-72 feet, total depth 4,172 feet, initial production 891 bbls. per day, elevation 3,112 feet. George Callahan and others' No. 1 Connell, top pay 3,545 feet, total depth 3,642 feet, shot 320 quarts from 3,515-42 feet, initial production 234 bbls.

McCulloch County

George Pulter and others' No. 1 Dutton, dry and abandoned 1,240 feet.

Taylor County

Eastland Oil Co. and others' No. 1 Tittle, abandoned location.

Reeves County

Cunningham's No. 1 Tiller, dry and abandoned 4,091 feet, elevation 2,917 feet, top Delaware (driller) 3,815 feet.

Upton County

King Mountain Oil Co.'s No. 1 Sherk, elevation 2,754 feet, dry and abandoned 2,515 feet. Gulf Production Co.'s No. 112 McElroy, top pay 2,863 feet, total depth 2,899 feet, shot 190 quarts from 2,835-94 feet, initial production 197 bbls.; No. 2-E Sherk, top pay 2,198 feet, total depth 2,326 feet, acidized, initial production 177 bbls. oil, 1 per cent b.s. and water.

Ward County

Prince Brothers' No. 1 York, top pay 2,355 feet, total depth 2,529 feet, initial production 440 bbls. Tex-Mex Petroleum Co.'s No. 5 Pure-Smith, top pay 2,395 feet, total depth 2,471 feet, shot 100 quarts from 2,380-2,420 feet, initial production 106 bbls. S. Caprito's No. 2 Bergman, top pay 2,160 feet, total depth 2,240 feet, shot 90 quarts from 2,160-2,230 feet, initial production 112 bbls.

Winkler County

Maxwell and others' No. 1 Daugherty, top pay 2,800 feet, total depth 2,954 feet, initial production 599 bbls. Sayre Oil Co.'s No. 3-B Howe, top pay 2,940 feet, total depth 2,970 feet, initial production 664 bbls.

PANHANDLE COMPLETIONS

Gray County

Empire Gas & Fuel Co.'s No. 3 Shields, top pay 2,153 feet, total depth 3,203 feet, shot 360 quarts from 3,130-3,200 feet, initial production 300 bbls. per day pumping. Magnolia Petroleum Co.'s No. 6 Harral, top pay 3,150 feet, total depth 3,210 feet, shot 200 quarts from 3,150-3,210 feet, initial production 182 bbls. per day pumping. Stanolind Oil & Gas Co.'s No. 4-B Cobb, top pay 3,179 feet, total depth 3,320 feet, shot 350 quarts from 3,179-3,316 feet, initial production 251 bbls. per day pumping. Sun Oil Co.'s No. 8 Combs-Worley, top pay 2,873 feet, total depth 2,984 feet, initial production 617 bbls. per day. Wilcox Oil & Gas Co.'s No. 37 Combs-Worley, top pay 2,915 feet, total depth 3,032 feet, shot 360 quarts from 2,915-3,005 feet, initial production 489 bbls. per day pumping.

Hutchinson County

Gulf Production Co.'s No. 7-B Whittenburg, top pay 2,870 feet, total depth 2,996 feet, shot 400 quarts from 2,870-2,996 feet, initial production 208 bbls. per day pumping. Stanolind Oil & Gas Co.'s No. 5-C Ware, top pay 2,976 feet, total depth 3,060 feet, shot 270 quarts from 2,955-3,060 feet, initial production 165 bbls. per day pumping.

Moore County

Texas Interstate Pipe Line Co.'s No. 1 Brown, gas pay 2,945 feet, total depth 2,956 feet, initial production 52,000,000 feet of gas.

Wheeler County

Helena Oil & Gas Co.'s No. 5 Keller, top pay 2,453 feet, total depth 2,530 feet, initial production 2,192 bbls.; No. 7 Keller, top pay 2,371 feet, total depth 2,500 feet, initial production 4,035 bbls. Mudge Oil Co.'s No. 1 Tinley, top pay 2,080 feet, total depth 2,186 feet, initial production 39,800,000 feet gas. Corite Oil Co.'s (formerly Triangle Oil Co.) No. 1 Stewart, top pay 2,126 feet, total depth 2,148 feet, initial production 160 bbls. oil with 8,000,000 feet of gas.

Simms Stockholders to Vote on Tide Water Plan

NEW YORK, May 27. — Stockholders of Simms Petroleum Co. on June 17 will vote on a proposal to dispose of the properties of Simms Oil Co., producing subsidiary, to Tide Water Oil Co. (Oklahoma). The purchase, accepted by directors of Simms subject to approval of stockholders, involves practically all of the producing properties of Simms. If approved there will be a distribution of $10 per share to Simms stockholders with other distributions under the terms of the contract. Simms officials announced intention of liquidating other properties as quickly as feasible. These consist principally of a refinery at Smackover, Ark., and one at Dallas, Tex., and marketing properties. The refineries were shut down last year.

The principal features of the purchase contract with Tide Water as announced by Edward Moore, president of Simms company, are as follows:

"The purchase price is $8,775,000 plus interest. Of this, $4,620,000 is a fixed payment and the balance of $4,155,000 is a contingent payment to be paid if, as and when oil is produced. The fixed payment consists of $2,620,000 cash and $2,000,000 in notes both with interest at 3 per cent from May 1, 1935. The notes are divided into $1,000,000 maturing in 6 months and $1,000,000 maturing in 12 months."

Shell-Union Corporation Vice Chairman Hopeful

NEW YORK, May 27.—Standard Oil Co. of California was a partner with Shell-Union Oil Corp. in the recent acquisition of the California producing properties of Pacific Western Oil Co., it was explained here at the annual meeting of the Shell-Union corporation. Shell-Union's interest was 42½ per cent of the $12,000,000 purchase. In the sale, a $10,000,000 bond issue outstanding by Pacific Western was assumed by the purchasers and has since been called for retirement.

J. C. van Eck, vice chairman of the Shell-Union board, told stockholders he was confident the company's operations "would be in the black in May." The company, holding unit for Shell operations in the United States, showed losses for 1934 and 1933. In discussing the company's financial situation, Mr. van Eck pointed out the sinking fund requirements on the preferred stock would take effect starting July 2 when $1,000,000 would be required.

The number of directors were reduced from 17 to 12. James H. Brookmire and G. Legh-Jones retired from the board and there were three vacancies.

McCOLL-FRONTENAC DIRECTORS

MONTREAL, Quebec, May 25. — At the annual meeting of the shareholders of McColl-Frontenac Oil Co., Col. W. A. Biship was elected to the board of directors, replacing the late Hon. W. G. Mitchell. Other directors were re-elected.

Pipe Line Construction

MUSKEGON, Mich., May 27.—Three new central Michigan pipe lines have been announced as a result of completion of two 5,000-bbl. producers in Crystal Township, Montcalm County. Simrall Pipe Line Co., of Mount Pleasant, has started laying a 6-inch line from its Crystal pumping station near the Otto Durbin discovery to the Roosevelt refinery, in Mount Pleasant, about 28 miles. The new line will move about 16,000 bbls. daily in addition to the capacity of a previous 9-mile 4-inch line laid shortly after completion of the Durbin well to Riverdale. The Franklin Tool & Supply Co. was awarded the contract.

Wolverine Pipe Line Co. will start construction of second 6½-mile 6-inch line from Crystal to Carson City on the Grand Trunk Western Railroad line.

Pure Oil Co. will complete a similar 4-inch line to Carson City for shipments by rail to the Old Dutch Refining Co. at Muskegon. It will have a capacity of about 11,000 bbls. The Wolverine line will have a still greater capacity.

Ben J. Skinner, of the Mid-West Refining Co. of Alma and Grand Rapids, announced plans to lay a 13-mile line from the Alma plant to Crystal.

The Noonan Crude Oil Transport Co., of Chicago, is building a 10,000-bbl. storage tank in Carson City and will purchase 6,500 bbls. daily from the Wolverine Pipe Line Co., in which the Sweet Oil Refining Co., of Edmore, also is interested.

MICHIGAN PIPE LINE

MUSKEGON, Mich., May 27.—Wolverine Pipe Line Co. has been formed to lay a 6-inch line with daily capacity of 16,000 bbls. from the Bennett farm, half mile east of Crystal discovery down the Montcalm-Gratiot County line to the Grand Trunk Railroad in Carson City where a 20-car loading rack will be erected. Pure Transportation is already laying a 4-inch line to a 10-car loading rack being built by the Grand Trunk in Carson City.

PRODUCTION DIVISION OFFICES

The office of the American Petroleum Institute Division of Production at Dallas, Tex., have been moved from 1508 Kirby Building, to 1508 Gulf States Building, Main and Akard Streets, across the street from the Kirby Building.

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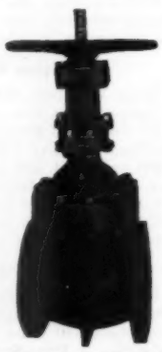
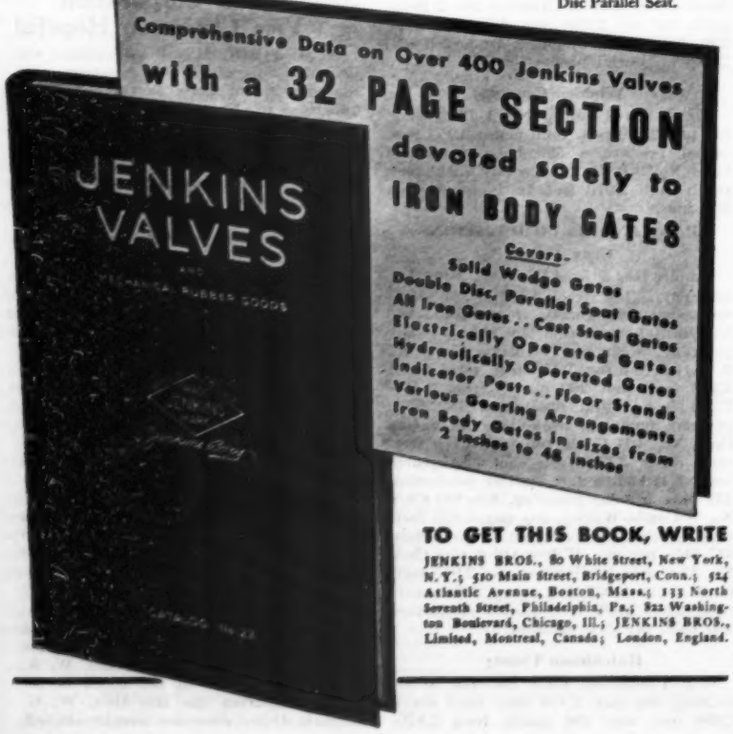


Fig. 879 Extra Heavy Iron Body Gate, Double Disc Parallel Seat.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Administrator's Report on Crude Oil Stocks

WASHINGTON, D. C., May 27.—Stocks of domestic and foreign crude petroleum at the close of the week ended May 18 totaled 324,006,000 bbls., according to data compiled by the Bureau of Mines, Department of the Interior, for Petroleum Administrator Harold L. Ickes. Compared with data for the previous week, this total represents a net decline of 673,000 bbls., comprising a decrease of 726,000 bbls. in stocks of domestic crude petroleum and a gain of 53,000 bbls. in stocks of foreign crude.

Current reports of the industry for the week ended May 18, in comparison with those for the previous week, indicate further increases in both production and consumption of crude petroleum. Daily average crude oil production was about 2,685,000 bbls., compared with an average of about 2,650,000 bbls. for the previous week. Crude runs to stills showed a small increase in rising from a daily average of 2,520,000 to 2,530,000 bbls. Imports of crude as reported by the American Petroleum Institute averaged 103,000 bbls. daily.

STOCKS OF CRUDE PETROLEUM, MAY 11 AND 18, 1935

(Barrels of 42 gallons)

Grade of crude oil—	May 11	May 18
Pennsylvania Grade ..	4,668,000	4,636,000
Other Appalachian ..	1,046,000	1,001,000
Lima-N. E. Indiana-Michigan	1,320,000	1,297,000
Illinois-S. W. Indiana.	11,620,000	11,693,000
N. Louisiana and Arkansas	10,107,000	10,334,000
West Texas and S. E. New Mexico	31,516,000	31,168,000
East Texas	*30,919,000	30,861,000
Other Mid-Continent .	147,918,000	147,547,000
Gulf Coast	*22,206,000	22,469,000
Rocky Mountain	27,596,000	27,556,000
California	31,771,000	31,399,000
Domestic crude	320,687,000	319,961,000
Foreign crude	3,995,000	4,048,000
Total†	324,682,000	324,009,000

*Revised.

†Represents approximately 98 per cent of total stocks in the United States, exclusive of producers' stocks.

Four Stations in Five Owned by Individuals

Study of Bureau of Census data by the American Petroleum Institute has disclosed that four out of five filling stations are owned by individuals, and that more individuals are operating filling stations than in any other retail activity except the grocery business.

The data covers 155,734 individual owners of stations, not including owners of 130,000 other sales outlets, garages, repair shops, accessory stores, battery shops, tire shops, and motor vehicle dealers.

It is estimated 70 per cent of the filling stations do a business amounting to less than $10,000 a year. Business for the average station is slightly below $9,000 a year. One lone station is an exception. Its yearly sales exceed a million dollars.

The 170,404 filling stations provide full-time employment for 143,395 workers. In addition, individual owners often are assisted by members of their families and part-time workers.

The average filling station customer buys 600 gallons of gasoline yearly. In a year more than 15,000,000,000 gallons of gasoline flow through the country's 750,000 gasoline pumps. It is estimated the average pump dispenses less than 60 gallons per day.

HARVEY S. SMITH DIES

HOUSTON, Tex., May 27.—Harvey S. Smith, Houston, independent oil operator, died after an illness of several weeks. He was credited with discovery of the Esperson Dome in Liberty County, and the Beck Dome in Victoria County. He was one of the leaders in the development of the Pierce Junction oil field.

At one time he was a sales manager for the Houston Oil Co., and later executive vice president of the Moody-Seagraves interests. He became an independent operator in 1928.

West Texas Wildcats

(Continued from Page 40)

P.S.L. Sur.
S.D. 2,137 ft.

Wood et al's No. 1 Hall, 250 ft. from S and 85 ft. from E. Sec. 11, Blk. 54½, 16 miles N of Van Horn, P.S.L. Sur.
S.D. 246 ft.

DAWSON COUNTY

Adams & Turner's No. 1 John Robinson, 1,320 ft. from N line, 1,320 ft. from W line of Sec. 46, Blk. M, E.L.R.R. Sur.
Cleaning out 4,860 ft.

O. F. Dicknson, trustee's No. 1 C. H. Dooks, 368 ft. from S and 330 ft. from E of SW cor., Sec. 4, Blk. H, E.L. Ry. Co. Sur.
Drlg. 175 ft. in new hole.

ECTOR COUNTY

Atlantic Oil Prod. Co.'s No. 1 T. P. Land Trust, 440 ft. from N and W of SE Sec. 11, Blk. 43, Twp. 1s, T.&P. Sur.
T.D. 4,391 ft.; plugged back to 4,255 ft.; swabbed 18 bbls. in 4 hrs., 25 per cent water.

Barnsdall Oil Corp.'s No. 2 Smith, 330 ft. from S and W lines of Sec. 1, Blk. 43, Twp. 1s, T.&P. Sur.
Elev. 3,064 ft.; drlg. 4,216 ft.

Empire Gas & Fuel Co.'s No. 1 Cummins, 440 ft. from S and E, Sec. 10, Blk. 45, Twp. 1n, T.&P. Sur.
Drlg. 4,028 ft.

International Pet. Corp.'s No. 1 Cowden, 660 ft. from S and E, Sec. 25, Blk. "44, Twp. 2s, T.&P. Sur.
T.P. 4,147 ft.; T.D. 4,330 ft.

Landreth Prod. Co.'s No. 1 Blakeney, 440 ft. from N and E, Sec. 28, Blk. 43, Twp. 1n, T.&P. Sur.
Derrick.

Landreth Prod. Co.'s No. 1-B O. B. Holt, 660 ft. from N and 1,980 ft. from E lines of Sec. 19, Blk. "A," P.S.L. Sur.
Drlg. 4,002 ft.

Landreth Prod. Co.'s No. 1 Cowden Heirs, 440 ft. from S and W, Sec. 18, Blk. 44, Twp. 1n, T.&P. Sur.
Top lime 3,708 ft.; fishing 4,165 ft.; to kill gas.

Landreth Prod. Co.'s No. 2 Scharbauer, 2,200 ft. from N and 440 ft. from W, Sec. 13, Blk. A, P.S.L. Sur.
Elev. 3,142 ft.; drlg. 2,375 ft.

C. L. Peters' No. 1 Connell, 330 ft. from N and E lines of NW of Sec. 12, Blk. B-16, P.S.L. Sur.
Fishing 1,595 ft.

EL PASO COUNTY

Tri-State Oil Co.'s No. 1 Kinkel, 190 ft. from N and 550 ft. from E, Sec. 237, A.T.&S.F. Sur.
S.D. 225 ft.; setting csg.

FISHER COUNTY

George Callihan et al's No. 1 Herring, 2,310 ft. from S and 330 ft. from W lines of Sec. 192, Blk. 1, B.B.B.&C. Sur.
Elev. 1,804 ft.; drlg. 2,709 ft

Russ Petroleum Co.'s No. 1 Reynolds, 550 ft. from S and 420 ft. from E of SW ¼ Sec. 3, Blk. R, W. E. Richardson Sur.
S.D. 1,571 ft.

Tide Water Oil Co. et al's No. 1 W. E. Hittson et al, 1,320 ft. from N and 660 ft. from W. Sec. 177, Blk. 2, H.&T.C. Sur.
Drlg. 1,632 ft.

GARZA COUNTY

N. L. Richards' No. 1 Sullivan, 330 ft. from N and W, Sec. 3, Blk. 5, K. Aycock Sur.
Elev. 2,624 ft.; show oil 2,815-32 ft.; increase 2,850-56 ft.; drlg. 2,895 ft.

GLASSCOCK COUNTY

John I. Moore et al's No. 1 J. S. McDowell, 1,980 ft. from N line and 660 ft. from E line of Sec. 22, Blk. 34, Twp. 2s, T.&P. Sur.
Topped lime 9,471 ft.; show oil and gas 9,484-9,520 ft.; increase oil 9,594-9,600 ft. and 9,632-55 ft.; T.D. 9,946 ft.; opened this week and made one 50-bbl. head into slush pit.

HOWARD COUNTY

Clay Bros. & White's No. 1 Read, 330 ft. from S and 1,650 ft. from W, Sec. 46, Blk. 30, Twp. 1n, T.&P. Sur.
T.P. 2,635 ft.; drlg. 2,790 ft.; shot and made 228 bbls. in first 24 hrs.; T.D. 2,782 ft.

John I. Moore et al's No. 1 Snyder, 330 ft. from S and W. Sec. 28, Blk. 30, Twp. 1s, T.&P. Sur.
Elev. 2,302 ft.; T.D. 100 ft.; set csg.

Iron Mountain Oil Co.'s No. 6 Reed, 330 ft. from S and W lines of Sec. 46, Blk. 30, Twp. 1n. T.&P. Sur.
T.D. 2,794 ft.; shot and cleaned out made 320 bbls. in 24 hrs.

Slagel's No. 1 Foster, 990 ft. from S and 330 ft. from W, Sec. 43, Blk. 29.
T.D. 3,013 ft.; pumped 48 bbls. in 24 hrs.; plugged back 2,760 ft.

JEFF DAVIS COUNTY

C. M. Joiner's No. 1 Jones & Coffield, 770 ft. from N and 1,322 ft. from E. Sec. 8, Blk. 3, H.&T.C. Sur.
S.D. 1,105 ft.

JONES COUNTY

Campbell et al's No. 1 Rowell, in E half of W half, Sec. 6, T.&P. Sur.
T.D. 950 ft.

Campbell et al's No. 1 Enevill, 1,400 ft. from N and 270 ft. from W. Sec. 2, M.E.&P. Sur., ½ mile S of Anson.
S.D. 2,340 ft.

Owen et al's No. 1 Johnson & Dunwoody, 3,750 ft. from S and 330 ft. from W. Sec. 6, Blk. 17, T.&P. Sur.
Spudded and S.D.

Sandyridge Oil Co.'s No. 1 P. Jones, 660 ft. from S and W of NW¼, Sec. 5, Blk. 15, T.&P. Sur.
T.P. 1,928 ft.; T.D. 1,937 ft.; testing; made 60 bbls. in 24 hrs.

Ungren & Frazier et al's No. 1 Steele, 1,450 ft. from S and 200 ft. from W lines of Sec. 8, Blk. 10, C. Allen Sur.
T.D. 1,714 ft.; underreaming.

Ungren & Frazier's No. 1 King Ranch, 200 ft. from N and E of NW half, Blk. 5,

M. Bueno Sur.
S.D. 380 ft.

KIMBLE COUNTY

Wilcox Oil & Gas Co.'s No. 1 J. Patterson, 200 ft. from N and E, Sec. 1, D.&P.R.R. Sur.
Rigged up standard tools.

LOVING COUNTY

D. C. Evans' No. 1 W. D. Johnson, 2,310 ft. from N and 1,650 ft. from W, Sec. 12, Blk. 57, Twp. 1, T.&P. Sur.
T.D. 2,155 ft.; underreaming.

Mason Oil Co.'s No. 1 Kyle, 1,980 ft. from S and E, Sec. 22, Blk. 55, Twp. 1, T.&P. Sur.
Drlg. 1,700 ft.

LYNN COUNTY

Hart Oil Co.'s No. 1 Edwards, 220 ft. from N and 200 ft. from W of SE Sec. 29, L.&S.V. Sur.
Elev. 3,113 ft.; T.D. 4,817 ft.; drlg. new hole 250 ft.

MARTIN COUNTY

Wright & Scott's No. 1 Flannigan, 330 ft. N and E, Sec. 22, Blk. 37, Twp. 1s, T.&P. Sur.
S.D. 100 ft. for csg.

MITCHELL COUNTY

Sawtell & Grueber's No. 1 Morrison.
S.D. 1,620 ft.

McCULLOCH COUNTY

Honea et al's No. 1 Cox, 450 ft. from S and 150 ft. from E, David Pope Sur.
S.D. 846 ft.

Skaggs & Brewer's No. 1 Dunn, 190 ft. from S and 570 ft. from E, Sec. 951, T. L. Hartig Sur.
S.D. 883 ft.

PECOS COUNTY

Adams et al's No. 2 Masterson, 1,630 ft. from SE and 330 ft. from SW, Sec. 104, Blk. 10, H.&G.N. Sur.
T.D. 390 ft.; set csg.

Cardinal Oil Co.'s No. 1 White & Baker, 150 ft. S and E lines of "E" lease, Sec. 40, Blk. 194, G.C.&S.F. Sur.
Fishing 804 ft.; gas blew tools up hole.

Gulf Prod. Co.'s No. 6 White & Baker, 330 ft. from N and W, Sec. 94, Blk. 194.
Rigged up.

C. R. Richards' No. 4 Courtney, 920 ft. from N and W, Sec. 78, Blk. OW, 360 ft. S of No. 2.
Drlg. 271 ft.

Samwan Oil Co.'s No. 2 Masterson, 330 ft. from W and 990 ft. from S lines of Sec. 104, Blk. 10, H.&G.N. Sur.
Drlg. 50 ft.

Trans-Tex. Oil Co.'s No. 1 Caldwell, 330 ft. from E line and 330 ft. from S line of Sec. 27, Blk. 40, Twp. 9, T.&P. Sur.
Drlg. 2,228 ft.

REAGAN COUNTY

Byrd-Frost Inc.'s No. 1 Boyd, 1,320 ft. from S and E of Sec. 6, Blk. E, L.V.S.&V. Sur.
Drlg. 3,185 ft.

Dobbs No. 1 Friend, 2,310 ft. from S and 660 ft. from W of Blk. 3, Wm. Allen Sur., 3 or 4 miles S of Big Lake.
S.D. 2,465 ft.; show oil 2,325-30 ft.; increase 2,355 ft.

John Emch's No. 1 E. V. Belcher, 467 ft. from N and 1,400 ft. from E, Sec. 4, Blk. 4½, G.C.&S.F. Sur.
Drlg. 1,280 ft.

Skelly Oil Co.'s No. 1-D H. S. Grayson, 1,980 ft. from N line and 660 ft. from W line of Sec. 33, Blk. 8, University Land Sur.
S.D. 9,967 ft.; bridged back to 3,100 ft.; treated with 2,000 gals. acid.

REEVES COUNTY

Dunigan's No. 1 Davis, 330 ft. from N and W, Sec. 7, Blk. 58, P.S.L. Sur.
Location.

Herbert Oil Co.'s No. 1 Williams & Walker, 5,280 ft. from S and 1,320 ft. from E, Sec. 17, Blk. 6, H.&G.N. Sur.
Drlg. 2,770 ft.

K. Slack et al's No. 1 Reeves, C NW ¼ Sec. 20, Blk. 56, P.S.L. Sur., 22 mi. N of Toyah.
Drlg. 382 ft.

Washington Oil Co.'s No. 1 J. M. Radford Grocery Co., 2,640 ft. from S and 340 ft. from E, Sec. 39, Blk. 56, P.S.L. Sur.
Cellar.

RUNNELS COUNTY

Dennis et al's No. 1 Wash, 550 ft. from N and 560 ft. from E of W half, Sec. 123, E.T.R.R. Sur.
Spudded and S.D.

Melrose Oil Co.'s No. 1 L. P. Woods, 150 ft. from NE lines and 3,475 ft. from W line of survey, Willett Holmes Sur. No. 100.
S.D. 2,507 ft.

R. Wells' No. 1 James, 396 ft. from N and 330 ft. from E of James tract in Sec. 16, D. Diaz Sur.
Cleaning out 1,100 ft.

SCHLEICHER COUNTY

John M. Cooper et al's No. 1 Bert Page, 1,290 ft. from N line, 1,470 ft. from W line of Sec. 40, Blk. L, G.H.&S.A. Sur.
Drlg. 6,079 ft.

W. C. Proctor et al's No. 1 Judkins & Spencer, C SW¼ Sec. 4, Blk. V.28.
Skidded derrick 40 ft. SW; rigged up standard tools.

SCURRY COUNTY

M. L. Goos et al's No. 1 J. E. Murphy, 330 ft. from N and 1,650 ft. from E, Sec. 114, Blk. 97, H.&T.C. Sur.
Drlg. 820 ft.

Magnolia Pet. Co.'s No. 1 J. W. Mooar, 1,630 ft. from N and 990 ft. from E, Sec. 342, Blk. 97, H.&T.C. Sur.
Material.

McLaughlin's No. 1 Allen, 1,331 ft. from N and 1,338 ft. from E, Sec. 298, Blk. 97.
Drlg. 3,287 ft.

STONEWALL COUNTY

Barnsdall Oil Co.'s No. 1 S. Young, 350 ft. from N and E, Sec. 26, Austin & Williams Sur. 349.
Drlg. 1,550 ft.

SUTTON COUNTY

Texs et al's No. 1 Mower, 1,980 ft. from S and W of Sec. 39, Blk. 5, T.W.&N.G. Sur.
Top white lime 4,527 ft.; S.D. 4,930 ft.

Paul C. Teas' No. 1 G. S. Allison, 660 ft. from S and W, Sec. 49, Blk. A, G.W.T.&P. Sur.
Location.

TAYLOR COUNTY

Skaggs & Brewer's No. 1 McClure, 330 ft. from N and E S half SW Sec. 8, L.A.L. Sur.
Drlg. 960 ft.

TOM GREEN COUNTY

Jacobs et al's No. 2 DeLong, 150 ft. from N and 450 ft. from E, James Webb Sur. No. 83.
Drlg. 564 ft.

UPTON COUNTY

Baldridge Oil Co.'s No. 1 S. Peck, 440 ft. from S and E. Sec. 29, Blk. 41, Twp. 4s, T.&P. Sur.
Elev. 2,590 ft.; top lime 4,763 ft.; S.D. 4,806 ft.

T.P. Coal & Oil Co.'s No. 1 Cordova Union Land, 2,406 ft. from E and 330 ft. from N, Sec. 33, Blk. 1.
Drlg. 2,076 ft.; hole filling with oil.

Gulf Prod. Co.'s No. 103 McElroy, 1,980 ft. from S and 660 ft. from W, Sec. 197, Blk. F, C.C.S.D.&R.G.N.G. Sur.
T.D. 12,720 ft.; show oil 12,710-20 ft.; swabbed and showed sulphur water; S.D. 12,736 ft.

Humble Oil & Ref. Co.'s No. 1 Pollock, C of NW, Sec. 4, Blk. M.
Drlg. 5,465 ft.

Williams & Williams Drlg. Co.'s No. 1 Robbins, 1,600 ft. from S and 1,900 ft. from E, Sec. 4, G.C.&S.F. Sur.
T.D. 2,080 ft.; testing.

WARD COUNTY

Atlantic O. P. Co.'s No. 2 Miller, 504 ft. from NE and 330 ft. from SE, W. F. Russell No. 3 Sur.
S.D. 2,585 ft.

Alexander's No. 1 Richter, 1,650 ft. from NW, 1,170 ft. from NE line of Sec. 27, Blk. 34, H.&T.C. Sur.
Set csg. 2,256 ft.

Bradford et al's No. 1 E. R. Allen, 660 ft. from NW line and 551 ft. from NE line, Sec. 11, Blk. 5, H.&T.C. Sur.
T.D. 1,520 ft.; shut down.

Caprito's No. 1 Hardage & Wilson, 2,310 ft. from NE and 990 ft. from SE, Sec. 11, Blk. 34, H.&T.C. Sur.
Machine rigged up.

Eastland Oil Co.'s No. 1 C. D. Mason, 330 ft. from SW and SE, Sec. 14, Blk. 34.
Machine rigged up.

Gulf Prod. Co.'s No. 58 O'Brien, 330 ft. from E and 1,650 ft. from S, Sec. 18, Blk. F.
Drlg. 735 ft.

Gulf Prod. Co.'s No. 57 O'Brien, 2,310 ft. from S and 330 ft. from E, Sec. 18, Blk. F.
Drlg. 2,567 ft.

Magnolia Pet. Co.'s No. 2 Sealy Estate, 2,310 ft. from S and 330 ft. from W, Sec. 43, Blk. F.
Drlg. 2,180 ft.

Sageland Oil Corp.'s No. 2 Pure-Bennett, 1,650 ft. from NW and 2,310 ft. from SW S.D. 220 ft.

Jerry Sines' No. 1 Brown, 330 ft. from NW and NE, Sec. 13, Blk. 5, H.&T.C. Sur.
T.D. 3,148 ft.; plugging off water.

West Texas O. & R. Co.'s No. 1-C University, 330 ft. from N and E, Sec. 6, Blk. 16.
Drlg. 2,575 ft.; 2,500 ft. oil in hole.

WINKLER COUNTY

Barnsdall Oil Co.'s No. 1 Brown & Altman, 2,310 ft. from S and E, Sec. 6, Blk. B-5.
Elev. 2,844 ft.; drlg. 2,052 ft.

Emperor Oil Co.'s No. 1 Halley, 1,650 ft. from S and 330 ft. from E, Sec. 12, Blk. B-12.
Elev. 2,764 ft.; drlg. 620 ft.

Fox & Butler's No. 1 Brown & Altman, 2,310 ft. from S and 1,650 ft. from E, Sec. 6, Blk. B-5.
Rigged up standard tools.

Green Prod. Co.'s No. 1 J. F. Cross, 330 ft. from N and 2,310 ft. from W, Sec. 4, Blk. B-10, P.S.L. Sur.
Shut down.

Gulf Prod. Co.'s No. 1 Keystone Cattle Co., NE of NW, Sec. 10, Blk. B-3, P.S.L. Sur.
Elev. 2,942 ft.; drlg. 1,525 ft.

Gulf Prod. Co.'s No. 2 Keystone Cattle Co., NW cor. Sec. 17, Blk. B-3.
Elev. 2,951 ft.; set csg. 458 ft.

Gulf Prod. Co.'s No. 3 Keystone Cattle Co., 330 ft. from N and W of NE ¼ Sec. 11, Blk. B-3.
Material.

Gulf Prod. Co.'s No. 4 Keystone Cattle Co., 330 ft. from N and E, Sec. 20, Blk. B-3.
Material.

Gulf Prod. Co.'s No. 5 Keystone Cattle Co., 330 ft. from N and W of SW¼ Sec. 6, Blk. B-2.
Rig.

Gulf Prod. Co.'s No. 6 Keystone Cattle Co., 330 ft. from N and W of NE¼ Sec. 16, Blk. B-2.
Material.

Gulf Prod. Co.'s No. 7 Keystone Cattle Co., 330 ft. from N and W of SW ¼ Sec. 14, Blk. B-2.
Location.

Gulf Prod. Co.'s No. 8 Keystone Cattle Co., 330 ft. from S and W of Sec. 13, Blk. B-2.
Location.

Gulf Prod. Co.'s No. 9 Keystone Cattle Co., 330 ft. from S and W of Sec. 18, Blk. B-2.
Location.

Harry Adams' No. 2 Scarborough, 990 ft. from N line and 990 ft. from W line, Sec. 2, Blk. 77, P.S.L. Sur.
Location.

Humble Oil & Ref. Co.'s No. 3-A Walton 660 ft. from S and W, Sec. 48, Blk. 26.
Derrick.

J. C. Maxwell's No. 1 Brown & Altman, 2,310 ft. from N and 990 ft. from W, Sec. 6, Blk. B-5.
Elev. 2,844 ft.; drlg. 1,278 ft.

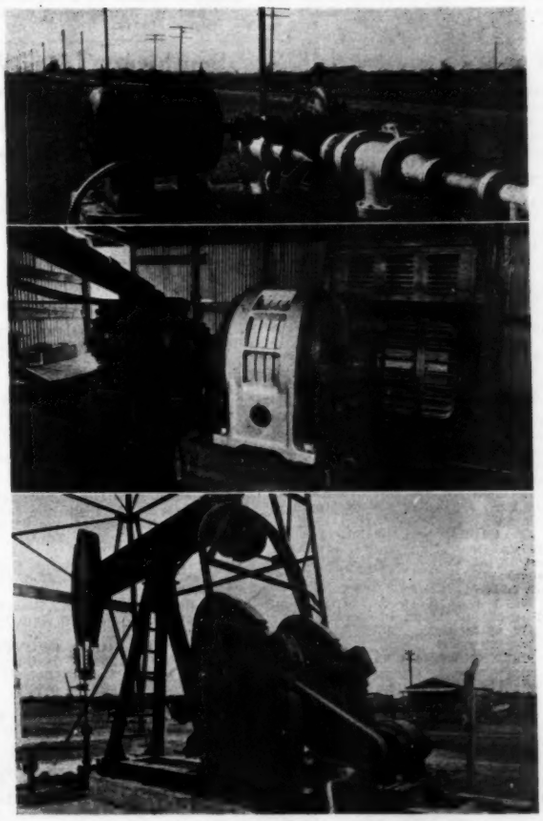
Mid-Continent Pet. Corp.'s No. 2 Howe, 1,650 ft. from N and 330 ft. from W, Sec. 12, Blk. 26.
T.D. 2,989 ft.; T.P. 2,800 ft.; C.O.

Richardson's No. 1 Walton, 1,010 ft. from S and 330 ft. from W, Sec. 1, Blk. B-3.

Electricity

HAS MANY FRIENDS . . .

. . . in every branch of the Oil Industry who know from personal experience that Electric Power has no rival for economy and efficiency. The experience of these leaders in the Industry as applied to your problems is available to you through your Power Company without obligation.



ASK YOUR POWER COMPANY

T.D. 2,945 ft.; est. 15,000,000 to 20,000,000 ft. gas; rigged up rotary.
Skelly Oil Co.'s No. 2 Halley, 1,320 ft. from N and 2,200 ft. from E, Sec. 25, Blk. B-11, P.S.L. Sur.
S.D. 3,090 ft.
Skelly Oil Co.'s No. 3 Halley, 2,200 ft. from N and 440 ft. from W, Sec. 16, Blk. B-11. Location.
Sinclair Oil Co.'s No. 1 Lowett, 330 ft. from N and E, Sec. 36, Blk. 24, P.S.L. Sur.
T.D. 2,607 ft.; drlg. out plug.
Sun Oil Co.'s No. 1 Halley, 2,200 ft. from N and 440 ft. from E, Sec. 24, Blk. B-12, P.S.L. Sur.
Drlg. 2,953 ft.
Texas Pacific Coal & Oil Co.'s No. 2 Daugherty, 1,650 ft. from S and 330 ft. from E, Sec. 2, Blk. 24, P.S.L. Survey.
Fishing 2,920 ft.
Weaver et al's No. 1 T. Morton, 330 ft. from S and E of N half, Sec. 11, Blk. B-12.
Rigged up machine.

YOAKUM COUNTY

C. J. Davidson et al's No. 1 Bennett, 1,320 ft. from N and E, Sec. 674, John H. Gibson Sur.
S.D. 118 ft.; standard derrick.

East Central Texas Wildcats

(Continued from Page 42)

HENDERSON COUNTY

Great State's No. 1 Ansley, 1,724 ft. W and 300 ft. S of SE cor. of M. Matthews Sur., N. H. T. Thompson Sur.
S.D. 3,315 ft.
H. M. Wilson's No. 1 fee, 970 varas S of NE cor. of 943-ac. tract, 5 miles N of Malakoff.
Derrick.

HOPKINS COUNTY

D. A. Hale et al's No. 1 L. M. Hall, 200 ft. from N and E lines of 70-ac. tract, 1 mile SE of Miller Bros. A. Caro Sur.
S.D. 2,950 ft.

HUNT COUNTY

Cauble & Thompson's No. 1 Reed, 330 ft. N of northerly NE cor. of C. B. Payne Sur., but in F. Thweatt Sur., 3 miles SE of Greenville.
Drlg. 3,515 ft.
J. F. Morrissey & Co., Inc.'s No. 1 Fry, 643 ft. from N and 200 ft. from E of 146-ac. tract, 7 miles N of Commerce, C. Davis Sur.
Drlg. 853 ft.
H. G. Samson's No. 1 Phillips, 1,300 ft. E of Winan's No. 1 Phillips, University Lands Sur., 2 miles W of Commerce.
Elev. 522 ft.; drlg. 2,446 ft.

KAUFMAN COUNTY

Germany et al's No. 1 Clark, 951 ft. N and 1,000 ft. W of tract, S. Eden Sur.
T.D. 1,780 ft.
Murry & Emerson's No. 1 G. W. Martin, 1,660 ft. from W and 250 ft. from N of 140-ac. tract, from W. L. C. Butler Sur., 2 miles NE of Kemp.
S.D. 27 ft.
L. P. Kean's No. 1 J. B. Hunter, R. Sowell Sur., 300 ft. from SW and 150 ft. from SE of 50-ac. tract, 4 miles S of Terrell.
S.D. 3,490 ft.

LEON COUNTY

Killough & Tucker's No. 1 G. W. Lee, center of NE 10 acres of 230-ac. tract, J. Burleson Sur.
Drlg. 2,562 ft.

LIMESTONE COUNTY

J. Edward Mills' No. 1 Hunt, 200 ft. from N, 350 ft. from W line 34.75-ac. tract, Israel Wood Sur., 3 miles NE of Kosse.
T.D. 2,837 ft.
C. F. Carter's No. 1 Dean, 660 ft. from SE and 330 ft. from SW lines of 75-ac. tract, P. Valella Sur., 3½ miles SW of Mexia.
T.D. 1,758 ft.
Doughtry et al's No. 1 S. Welch, 150 ft. from NW and 900 ft. from NE of 77.64-acre tract in A. Varilla Sur., 4 miles W of Groesbeck.
Top sand 2,946-51 ft.; S.D. 3,004 ft.
Y. Rogers' No. 1 J. M. Tidwell, 330 ft. from S and E of 330-ac. tract, P. Varella Sur., 3 miles SW of Mexia.
Derrick.

McLENNAN COUNTY

Mahan et al's No. 1 Mann, 1,100 ft. W of Simms Oil Co.'s No. 1 Mann, Carlos Tampo Sur., W. of Robertsonville.
S.D. 700 ft.; (corrected).

NACOGDOCHES COUNTY

Douglas Exploration Co.'s No. 1 Hayter, L-687 ft. from S and 2,582 ft. from W lines of tract, Santos Coy Sur.
S.D. 4,272 ft.
Morrow et al's No. 1 C. B. Watkins, 150 ft. from N line and 330 ft. from NW lines of 146-ac. tract, 3 miles S of Caro, H. Y. Bailey Sur.
S.D. 4,170 ft.
Stebbinger & Baker, trustee's No. 1 Mrs. A. Mattauer, 408 ft. from W and 607 ft. from N of 440-ac. tract, R. Totin Sur., 4 miles SE of Cherino.
Derrick.

NAVARRO COUNTY

Bennett Brothers' No. 1 T. E. Stewart, 150 ft. from NE line of lease, 10 miles SW of Corsicana, Wm. R. Bowen Sur.
T.D. 1,196 ft.; S.D.
E. B. Codding et al's No. 1 Lois Kent, 450 ft. from S line and center of N and S lines of lease, 3 miles NE of Chatfield, C. B. Emmons Sur.
S.D. 1,340 ft.
W. J. Keeling et al's No. 1 J. F. Rushing 484 ft. from N line and 150 ft. from W line of 154-ac. tract, 6 miles SW of Richardson, Henry Ford Sur.
T.D. 2,861 ft.
McCullough et al's No. 1 C. Berry, 330 ft. from SE cor. of 35-acre tract, 1 mile W of Dawson, William Moss Sur.
S.D. 1,152 ft.
E. M. Thomason & Co.'s No. 1 C. Morgan, 340 ft. from W and 520 ft. from N of 100-ac. tract, Wm. Haggard Sur., 1 mile SW of McGlothlin's No. 1 Debbin.
Drlg. 25 ft.
Wiggins et al's No. 1 Donoho, 450 ft. from N and 1,101 ft. from E lines in John Couple Sur., SW of Corsicana.
S.D. 1,439 ft.

RED RIVER COUNTY

Joiner's No. 1 D. Rust, C. C. Wilborn Sur., 224 ft. N and 254 ft. W of most southerly SE cor. of Sur., just south of Avery.
Rig.

RUSK COUNTY

Ben Lamb's No. 1 H. Leath, 330 ft. out of NW cor. of 185-ac. tract in L. J. Dooley.
S.D. 4,725 ft.; to test.
Richardson's No. 1 Wood.
Drlg. 2,800 ft.

SMITH COUNTY

Cloud et al's No. 1 Dendall, 330 ft. from S and W of 55-ac. tract, J. Williams Sur., 3 miles E of Van Field.
S.D. 1,650 ft.
W. R. Harrison's No. 1 Rushing, J. Herring Sur. (O.W.D.D.).
T.D. 4,330 ft.; S.D.

TITUS COUNTY

S. Rotondi's No. 1 Lillianstun, 1,200 ft. E from NW cor. of J. Bodt Sur. and 330 ft. N, but in W. H. Crawford Sur., 5 miles NE of Talco.
Elev. 301 ft.; derrick.

UPSHUR COUNTY

Humphries' No. 1 J. Ferguson, 330 ft. N and E of NW cor. of J. H. Brown's 100-ac. tract, R. Wyatt Sur., 2½ miles south of Ore City.
Rigged up.

VAN ZANDT COUNTY

J. H. Foster et al's No. 1 Breucher, 330 ft. out of SE cor. of tract, D. Clapp Sur., 4 miles SE of Wills Point.
Fishing 3,215 ft.
J. Beren et al's No. 1 Bryant, 483 ft. N of same operator's dry hole, Nacogdoches County School Land Sur.
Fishing 3,215 ft.
Beren et al's No. 2 Palmer, 544 ft. from S and 686 ft. from E of 69.5-ac. tract, Nacogdoches County School Land.
T.D. 1,324 ft.
Peden & Olson's No. 5 Brannon, 150 ft. from N and W, Nacogdoches Co. School Lands.
Drlg. 1,210 ft.

Southwest Texas Wildcats

(Continued from Page 39)

A. D. Locke's No. 1 Lowman, 210 ft. from SE and SW lines of 2,500-ac. tract in C. Campbell Sur.
Drlg. 1,325 ft. in sidetracked hole; T.D. 1,810 ft.
Mineral Oil Corp. of Texas' No. 1 Allen Phillips, 162 ft. from N line, 900 ft. from E line of tract, Cortinos Sur.
Set surface csg.
J. S. Suttle's No. 2 Baenziger, S of Seguin. Old well; R.U. to W.O.
Suttle et al's No. 1 Baenziger, 700 ft. from S line, 500 ft. from E line of 125-ac. tract, Monsola Sur.
C.O. 2,153 ft.; C.O. to chalk; set csg.; W.O.C.

HIDALGO COUNTY

Bluff Pet. Co.'s No. 1 Porcion Land Co., 330 ft. from N and E lines of NE 100 acres of S 500 acres of Share 14, Por. 49.
Spudded.
E. A. Davis' No. 1 Flores, 65 ft. from N line, 25 ft. from W line, Tract 312, Porcion 38.
R.U. and S.D.
Downey & Morton's No. 1 Daskom, 450 ft. from E line, 55 ft. from S line of Blk. 34, Por. 45.
Drilled plugs 4,115 ft.; completing.
E. H. East's No. 1 Carter, 330 ft. from E line, 900 ft. from N line of Blk. 19, East Retama Subd., Tule grant.
Abd. 1,630 ft.
Nedler & Graham's No. 1 Oscar Daskam, center of Blk. 42, Porcion 45.
Derrick.
E. L. Smith's No. 1 A. Flores, Tract 250, Porcion 38, 1 mile NW Sam Fordyce Field.
Coring 3,060 ft.

JIM HOGG COUNTY

Darby Pet. Co.'s No. 1 Holbien, 330 ft. out of SW cor. of Lot 57, Sur. 5, Los Animas grant.
Rigging up.
French Oil Co.'s No. 2 T. T. East, 330 ft. from NE and NW lines, Blk. 74, Subd. No. 2 Las Moritas grant.
Drlg. 1,110 ft.
Miller & Pippin's No. 1 Yeager, 527 ft. S line, 150 ft. E line of Blk. 4, Sur. 39.
Drlg. 3,400 ft.; sand 3,097-3,100 ft.
A. Edmiston's (Southwestern Dev. Synd.) (formerly John D. Norwood) No. 1 C. W. Hellen, 330 ft. N and W lines, NW¼ NW¼ Sur. 48.
S.D. 1,600 ft.
A. W. Phillips' No. 1 Allen, 660 ft. from S and E lines of Blk. 293, Pippin Subd. of the Randado grant.
Moving in material.
Sun Oil Co.'s No. 1 T. T. East, 18,600 ft. from N line, 3,350 ft. from W line of Santa Domingo de Arribo grant.
Abd. 4,226 ft.

JIM WELLS COUNTY

A. M. Hagan's No. 1 Robert Adams, SW cor. Sec. 10, M. Ruiz Sur.
Moving in rig.
Jim Kendrick's No. 1 Radford, J. Pointevent Sur. on the Seegter tract.
Moving in material.
Smith & Story's (Maer & Shira) No. 1 Schaefer, 1,320 ft. E of NW cor. center of Blk. 15, of subdivision of ranch.
Drlg. 3,870 ft.

KARNES COUNTY

W. C. McBride's No. 1 Boultinghouse, 643 ft. from SE line, 618 ft. from SW line of J. S. Menefee Sur.
Moving in material.
H. A. Pagenkopp's No. 1 T. J. McAda, 330 ft. from NE and NW lines of Tract C, Martinez Sur.
S.D. 5,256 ft.
Harry Sample's No. 1 Seeger, 330 ft. from W line, 330 ft. SW of road, J. Pointevent Sur.
Rigging up.
R. G. Tonkin's No. 2 Henke, 3,670 ft. from SW cor., 330 ft. from W line (location changed).
Location site cleared and pits completed.

KERR COUNTY

Meteor Oil Co.'s (Edminton & Walker) No. 1 Whitworth, 1,160 ft. from S line and 1,333 ft. from E line of Sec. 1,439, of the H.E.W.T. Sur.
S.D. 950 ft.
Jeff Love and Eastland Oil Co.'s No. 5-E Jeff Love, 1,500 ft. SE of No. 1 and 1,530 ft. from SE cor. and 300 ft. from N line of Sec. 1,591.
Hole full of S.W. 5,625 ft.

KLEBERG COUNTY

Parr & Ponder's No. 1 Sam Michalk et al, 5 miles SE Kingsville.
S.D. 1,050 ft.

LASALLE COUNTY

C. W. Benk's No. 1 Felix, 1,300 ft. from S line, 300 ft. from E line of Sur. 47.
Drlg. 3,100 ft.
Killingsworth Oil Co.'s No. 1 Yeager, Sur 94. Sand 1,499-1,710 ft.; Schlumberger test showed 9 ohms; 7⅝-in. csg. set to bottom; to perforate in sand; T.D. 2,000 ft.

LEE COUNTY

Jas. E. Pederson's No. 1 Turner, 1,860 ft. from N line, 150 ft. from E line of tract, David Hudson Sur.
T.D. 6,560 ft.; P.B. to 6,150 ft.; preparing to perforate csg.

LIVE OAK COUNTY

Orbit Drlg. Co.'s (Baugh & McMillan) No. 1 Walton & Campbell, 1,500 ft. NE line and SE line of D. R. Fant Sur.
3,560 ft.; (corrected); no report.
Henderson Coquat's No. 1 Reagan, McGloin Sur., E of Nueces River and S of Oakville.
Drlg. 1,075 ft.
Henderson Coquat's (Luling O. & G. Co.) No. 1 Rex, 330 ft. from SE and SW lines of 629-ac. tract, C of SW¼ of G.H.&H. Sur., Abst. 197, 3 miles S of Mileska.
Ran D.S. test at 4,360-74 ft.; showed 50 lbs. and 2 joints of mud cut with oil and gasoline in 5 minutes; coring ahead 4,374 ft.
Lefevre, Spice & Feltner's No. 1 Carter Inv. Co. (Chappa ranch), 330 ft. from SW cor. NE¼ of Sec. 299, Hooper & Wade Sur.
Spudded.
J. O. Whittington's No. 1 Little, 1,320 ft. NE of S cor. of M. M. Shipp Sur., 330 ft. N of S line.
T.D. 5,758 ft.; S.D.

McMULLEN COUNTY

John O. Gibson's No. 1 (G. C. West) Mazur & McDowell, 330 ft. from N and W lines, Sec. 19, Blk. 4, H.T.&B. Sur.
Drlg. 455 ft.
Henderson Coquat's No. 1 Ezzell, midway N and S lines, 2,000 ft. from SE line, D. R. Fant Sur.
Drlg. 980 ft.
Howard & Carpenter's No. 1 Jungman, 1,030 ft. from E line, 950 ft. from S line, Hely Sur.
T.D. 780 ft.; completing.
Brown & Nessly's No. 1 Dr. Worley, 9,930 ft. N of river along W line of O'Boyle Sur., 1,399 ft. E at R/A.
Abd. 1,040 ft.
Chas. A. Hall's No. 1 B. C. Claunch, 368 ft. from N line, 160 ft. from E line of 25-ac. tract, Michael Haley Sur.
Location.
C. C. Shumway's No. 8 Shiner, 330 ft. out of NE cor. of SE¼ of Sec. 53, C. C. Shumway Subd.
R.U. and S.D.
Texio Oil Co.'s No. 1 (Ellen Atkinson) Hendricks, 330 ft. from S and W lines of 80-ac. tract, Martha J. Deen Sur., Sec. 13.
Sand 2,195-2,207 ft.; D.S. test showed 500 ft. P.L. oil in 15 minutes; set csg.

MEDINA COUNTY

Dupree's No. 1 Batot, 255 ft. from E line, 957 ft. from N line, J. Ball Sur. No. 1,478.
Drlg. 240 ft.
John Lind's No. 1 Jungman, 2,050 ft. from N line, 550 ft. from W line, J. Degat Sur.
Abd. 1,790 ft.
W. T. Shoemaker's No. 1 Noonan, 52.5 ft. S 2 deg. 20 ft. E of old well, Sec. 349, M. Simon Sur.
T.D. 460 ft.; hole caving; to move in rotary.

REAL COUNTY

H. J. Heartwell et al's No. 2 L. J. Maby, 250 varas from NW line, 775 varas from SW line of A.B.&M. Sur. No. 175.
Drlg. 3,200 ft.

SAN PATRICIO COUNTY

Masterson et al's (Tom Graham) No. 1 Wurzbach, 330 ft. from W line, 4,350 ft. from S line of C. C. Hornsby Sur.
Standing 5,521 ft.

STARR COUNTY

Armstrong, Emmanuel & Adams' No. 1 S.C. C.C., 330 ft. from S and E lines of Blk. 57, Porcion 88-89.
T.D. 2,740 ft.; hole swbd. dry; to perforate again; standing.
C. R. Borah's No. 1 A. Guerra, San Jose grant, 330 ft. from N and 150 ft. from E lines of Sec. 6 (NE part of county).
Drlg. 3,200 ft.
John H. Clopton's No. 1 Mrs. A. M. Kelsey-Bass, 2,950 ft. from W line, 3,610 ft. from E line of Porcion 88 in Porcion 86, Jurisdiction of Camargo.
Rigging up.
John H. Clopton's No. 1 Dioncia Lopez de Tijerina, Blk. 4, Tract C-14, Porcion 80.
Drlg. 2,915 ft.
Crawford et al's No. 1 Hicks et al, 197 ft. from NW line, 318 ft. from NE line of Blk. 6, Pedernal grant.
Abd. 1,615 ft.
Heep Oil Co.'s No. 1-A Guerra, Blk. 35, 30 ft. S from No. 1, Porcion 55.
Drlg. 3,414 ft.
Henshaw Bros.' (Sunray Oil Co.) No. 1 Sanches, 330 ft. from NE and NW lines of 40-ac. tract, Sur. 344.
Rigging up.
Hiram Reed's No. 1 Block Bros., Tract A-21, Porcion 80, Blk. 4.
S.D. 1,540 ft.; oil sand 1,490-1,501 ft.
Dale Sneed's No. 1 Y. and V. Guerra, 331 ft. W line of Por. 68, 330 ft. S line of 1,000-ac. block of N end of Por. 92, in Por. 68.
Standing 330 ft.
Sunray Oil Co.'s No. 1 Lopez (Munos), 1,600 ft. from N line, 880 ft. from E line, Porcion 75.
Abd. 4,007 ft.
Sun Oil Co. and Humble's No. 1 Mantor & Briggs, 660 ft. from NE line, 657 ft. from NW line of A.B.&M. Sur., NW¼ of NW¼ of Sur. 53.
Drlg. 2,258 ft.

WEBB COUNTY

Payne et al's No. 1 Hoggtorp, 450 ft. from SE line, 300 ft. from NE line, Blk. 5, Sur. 1,110, W of Oilton.
S.D. 1,982 ft.
Arthur H. Wray's No. 1 Geo. Stuempke, Share 1, Brewster pasture, Galan grant.
Drlg. 1,125 ft.; moving in electric rig; (corrected depth).

WILLACY COUNTY

W. T. Daniel's No. 2 Armendiaz, near Rio Hondo, 7,798 ft. from E and W lines of Share 14.
T.D. 3,660 ft.
Kingwood Oil Co.'s No. 1 Santa Rosa, Inc., 160 ft. from E line, 637 ft. from S line of Sec. 30, Blk. 16, Share 44, San Juan de Carricitas grant.
S.D. 2,055 ft.

WILLIAMSON COUNTY

Fuchs & Walters' No. 1 S. Allmon, John Bevil Sur. No. 56, 150 ft. from SW line, 300 ft. most westerly SW line of 264-ac. tract.
Shale 55 ft.
Hays et al's No. 1 Pfluger, 150 ft. from N line, 150 ft. from S line, White Sur.
S.D. 915 ft.
Hayes et al's No. 2 Pfeluger, H. White Sur.
Moving in material.

ZAPATA COUNTY

F. H. Crow et al's No. 1 Daniel Ysaguirre, 330 ft. out of SW cor. Share 1, Porcion 14-15-16, D. Ysaguirre tract.
Drlg. 1,850 ft.; sand 1,735-45 ft.
Danvers & Harrison's No. 1 D. A. McAskill, 660 ft. SE and SW lines, Blk. 51, Edwards Subd., Borrego grant.
Set and cmtd. csg. 20 ft.
Joe Palmer's No. 1 Emma A. Markrud, 150 ft. from NE and NW lines, Blk. 22, Sur. No. 616.
Rigging up.
Texas Royalty Investment Co.'s No. 1 N. J. Vela, 686 ft. from NE line, 300 ft. from NW line, Blk. 7, Por. 29.
S.D. 2,338 ft.

Southwest Texas Proven

Week Ending May 25

CARROLL—BASTROP COUNTY

Nelson Puett's No. 4 J. H. Carroll Estate.
T.D. 2,228 ft.; treating with acid.

CEDAR CREEK—BASTROP COUNTY

J. E. Mills' No. 2 H. H. Lytton, 225 ft. NW line, 825 ft. SW line, 320 acres. J. A. Navarro Sur.
Spudded.

CAESAR—BEE COUNTY

El Toro Oil Co.'s No. 1 J. J. Grisson, 150 ft. from N and W lines of 10-ac. tract, P. B. Early Sur.
Spudded.
Luling O. & G. Co.'s No. 1 Vaughn.
Tested sand 3,031-35 ft.; showed 200 ft. of oil in 20 minutes; setting csg.
El Toro's No. 3 Gardner, 150 ft. from N and W lines of lease.
Rigging up.
Swiger et al's No. 4 Gardner, W offset to Vaughn producer.
Moving in material.
Swiger et al's No. 6 Gardner, 600 ft. E of No. 5.
Abd. 3,045 ft.

DIRKS—BEE COUNTY

Mills Bennett Prod. Co.'s No. 1 L. W. Dirks et al, 400 ft. from NE line, 150 ft. SE of road, H. L. Williams Sur.
Drlg. below surface csg.
Dirks Bros.' (Conservative Oil Co.) No. 1 Harris, 330 ft. S of N line, 330 ft. W of E line of 10-ac. tract, J. L. Dugat Sur.
T.D. 3,898 ft.; completed good well; no gauge.
Highland Oil Co.'s No. 1 P. L. Campbell, 320 ft. from NE line, 640 ft. NW of No. 3, W. B. Blanchard Sur.
Location.
Home Oil Co.'s No. 2 Bassinger, 990 ft. from N line, 320 ft. from E line of N½ of NW¼ Sec. 7.
Coring for sand 3,800 ft.
Home Oil Co.'s No. 5 Bassinger, 330 ft. from S and W lines of W½ of NW¼ of Sec. 7.
T.D. 3,829 ft.; completed; no gauge.

PETTUS—BEE COUNTY

L. T. Barrow's No. 3-A McKinney, S 65 deg. E 1,500 ft. from No. 2-A.
Drlg. 1,200 ft.

TULETA—BEE COUNTY

Edwin M. Jones' No. 1 Unsicker, 330 ft. from S and E lines of Sec. 6.
T.D. 4,276 ft.; P.B. to 3,950 ft.; I.P. 15 bbls. per day.
Mills Bennett Prod. Co.'s No. 2 (A-1) Bassinger, 330 ft. out of SW cor. of N 42-ac. tract, Sec. 7.
Sand 3,546-52 ft.; I.P. 250 bbls. per day.
Mills Bennett Prod. Co.'s No. 1-B C. W. Bassinger, 256 ft. from W line, 330 ft. from S line of SE¼ of NW¼ of Sec. 7, Ragley Subd., Uranga grant.
Drlg. plugs 3,552 ft.
Leslie McKay's No. 2 Campbell, 150 ft. from NE line, 600 ft. NE of No. 3 Brooks & Burleson Sur.

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Sand 2,910-20 ft.; showed 650 ft. oil, 75 lbs. in 10 minutes; set csg.
Southwest Exploration Co.'s No. 1 Heyden & Bruckhan, C of farm tract, 330 ft. from N and W lines of Sec. 20, Urangs grant. Rigging up.
Stanolind O. & G. Co.'s No. 1 Walton (Mebane), 330 ft. from W line, 4,111 ft. from N line, Blk. 21, Ragley Subd., J. M. Uranga grant.
T.D. 3,956 ft.; I.P. 6 bbls. per hr.; 3/16-in. choke; tubing pressure 275 lbs. and csg. pressure 650 lbs.
Texas Co.'s No. 1 Young, 2,175 ft. W, 330 ft. N of SE cor. of T. J. Butler Sur., 10-in. csg. at 284 ft.; coring shale 3,-860 ft.
Wrightsman Oil Co.'s No. 1 Kimball, 1,200 ft. from NW line, 1,500 ft. from NE line, S. Winship Sur.
Standing 1,800 ft.

VON ORMY—BEXAR COUNTY

T. and C. Owens' No. 1 Trawalter, 150 ft. W of river, 150 ft. from S line of tract No. 15, A. G. Trawalter Subd.
Spudded.
N. G. Carter's No. 1 F. Bilhartz, 150 ft. from N and E lines of lease, F. Rolen Sur. No. 43.
T.D. 765 ft.; I.P. 5 bbls. per day on pump.

DUNLAP—CALDWELL COUNTY

R. Y. Walker's No. 2 Walker, S. Seale Sur. Drlg. 1,660 ft.

LULING—CALDWELL COUNTY

Bellard & Whiting et al's No. 1 Mrs. A. C. Bridges et al, 650 ft. from NW line, 450 ft. from NE line of Soluman Seal Sur. Spudded.

GOVERNMENT WELLS POOL—DUVAL COUNTY

Georgia F. Hill's No. 1 W. J. Nester, 357.38 ft. from E line, 353.55 ft. from S line of SE¼ of NE¼ of Sec. 47.
T.D. 2,276 ft.; sand 2,263-76 ft.; set csg.
Magnolia Pet. Co.'s No. 5 J. T. Johnson, 330 ft. from S line, 990 ft. from E line of N½ of SE¼ of Sur. 78.
Drlg. 2,339 ft.
Magnolia Pet. Co.'s No. 11 J. W. Riley, 990 ft. from S and W lines, Sur. 45.
Rigging up.
Parr Oil Co.'s No. 2 R. E. Glover, 330 ft. from N and W lines of SE¼ of SE¼ of Sec. 44, J. Poitevent Sur.
T.D. 2,347 ft.; I.P. 100 bbls. per day.
Parr Oil Corp.'s No. 3 R. E. Glover, 330 ft. from N and E lines of SE¼ of SE¼ of Sec. 44, J. Poitevent Sur.
Location.
Sun Oil Co.'s No. 8 Cuellar Motor Co., 701 ft. E of No. 7, 330 ft. from S line of Sec. 576, B.S.&F. Sur.
T.D. 2,430 ft.; I.P. 50 bbls. per day.

SARNOSA—DUVAL COUNTY

Sun Oil Co.'s No. 9 Cuellar Motor Co., 990 ft. from NE line, 990 ft. from SE line of Sec. 576, B.S.&F. Sur.
Drlg. 125 ft.

HOFFMAN—DUVAL COUNTY

Bridwell Oil Co.'s No. 3 Sutherland, 1,650 ft. from E line, 990 ft. from S line, of E½ of Sur. 122.
Rigging up.
Conway & Butscher's No. 2 Hoffman, 330 ft. S, 325 ft. E of SW cor. of Sur. 120 in sur. No. 114.
S.D. 3,014 ft.
Duval Oil Corp.'s No. 1-A Bishop Cattle Co., 1,650 ft. from E line, 330 ft. from S line of Sec. 70.
Set surface csg.

LOMA NOVA—DUVAL COUNTY

Al Buchanan and Blanco's No. 4 Ruiz, 660 ft. W of No. 2.
Drlg. 3,100 ft.; D.S. test from 2,705-27 ft. made 40 ft. oil, 20 ft. of mud in 15 min.
Frank J. Gravis' No. 1 Byland, 330 ft. from N and W lines of Blk. 4, Sur. 78.
Drlg. 815 ft.
Hamill-Smith et al's No. 1 M. C. Hubbard, 330 ft. out of SW cor. of S half of W half of Sec. 77, Morris & Cummings Sur.
T.D. 2,681 ft.; I.P. 8½ bbls. per hr.; open tubing.
Humble O. & R. Co.'s No. 3 M. Vela, 330 ft. from S line, 710 ft. W of No. 2, N½ Sec. 42, T.T.R.R. Co. Sur.
Set csg. 2,702-05 ft.
Humble O. & R. Co.'s No. 1-C Jas. F. Welder, 330 ft. from S and W lines of Sec. 73, Stone, Kyle & Kyle Sur.
W.O.C. 2,724 ft.
Stieren Oil Corp.'s No. 1 Wright et al, S offset to Buchanan's No. 1 Ruiz, 330 ft. out of NE cor. of Sur. 72.
Drlg. 1,100 ft.
Texas Co.'s No. 4 Vela, 330 ft. from S and E lines, Sur. 42.
Set 7-in. csg. in sand 2,728-35 ft.

SEVEN SISTERS—DUVAL COUNTY

Dulce Oil Co. and Henderson & Harvey's No. 1 Serna, 150 ft. from E line, 330 ft. from N line of NW¼ of Sec. 384.
Rigging up.
Humble O. & R. Co.'s No. 1 Bank of Fredericksburg (Wright), 1,645 ft. from S line, 990 ft. from E line, Sur. 382.
Location.

PEARSALL—FRIO COUNTY

Amerada Pet. Corp.'s No. 4 Oppenheimer, 3,200 ft. from NW line, 990 ft. from NE line, J. H. Gibson Sur.
Sand 3,922-24 ft.; set 7-in. csg. at 3,918 ft.; jetting approx. 17½ bbls. per hr.; tubing pressure 600 lbs.
Amerada Pet. Corp.'s No. 1 W. H. Smith et al, 4,500 ft. from NE line, 1,650 ft. from SE line, Joseph V. Mason Sur. No. 322.
Coring 4,065 ft.; sand; oil show 4,015-22 ft.; S.W. sand 4,022-43 ft.

DARST CREEK—GUADALUPE COUNTY

Grayburg Oil Co.'s No. 14 McKean, 700 ft. from No. 13, Cottle Sur.
Standing 1,854 ft.
Grayburg Oil Co.'s No. 15 McKean, 200 ft. from NW line, 150 ft. from SW line, H. Cottle Sur.
Spudded and S.D.
Texas Co.'s No. 2 Posey (workover).
Old T.D. 2,606 ft.; set 7-in. csg. at 2,575 ft.; T.D. of sidetracked hole 2,583 ft.

DINERO—LIVE OAK COUNTY

Marine Oil Co.'s No. 1 Adair, 330 ft. from N and W lines of 366-ac. tract in J. McGloin Sur.
Coring for sand 5,200 ft.
Smith & Story's No. 1 Nueces Townsite, Jane Curry Sur., NW offset to their No. 1 Fredericka.
Drlg. plugs 5,216 ft.; swbng.

LUCAS—LIVE OAK COUNTY

Houston Oil Co.'s No. 32 Cartwright, 1,124 ft. N of No. 31, Trudo Sur.
Sand and shale 5,410 ft.; no report.
Lion Oil Ref. Co.'s No. 5 P. E. McNeill, 330 ft. from NW line, 1,350 ft. from SE line of G.H.&H. Sur. in Jane Curry Sur., Blk. 9. Location.
Lion Oil Ref. Co.'s No. 7 McNeil, 600 ft. from SE line, 370 ft. N of No. 5, J. Curry Sur., Blk. 9.
T.D. 4,419 ft.; I.P. 3½ bbls. per hr.; 1-in. choke.
Lion Oil Ref. Co.'s No. 6 McNeil, 670 ft. SE of No. 1, 760 ft. from SE line of S. N. Dobie Sur., Blk. 9.
T.D. 4,386 ft.; I.P. 6 bbls. P.L. oil per hr.; 11/64-in. choke; tubing pressure 1,450 lbs. shut in; csg. pressure 1,500 lbs.
Darby Pet. Co.'s No. 1 McNeill, 330 ft. out of NW cor. of 116-ac. lease, 1,200 ft. SE of Lion's No. 1.
Drlg. 1,811 ft.

SAM FORDYCE—HIDALGO COUNTY

Barnett et al's No. 2 Missouri Pacific, 1,000 ft. E of W line of right of way.
Moving in material.
Cortez Oil Co.'s No. 1-C Smith, 230 ft. from N and W lines of NE 40 acres of Tract B-3, Porcion 41.
Sand 2,745-51 ft.; set csg.
Double D. Oil Co. and Harrison's No. 2 Lula George, 230 ft. from W line, 690 ft. from S line of SW 40 acres of Tract 13, Porcion 41.
Drlg. 1,650 ft.
Gem Oil Co.'s No. 2-A Seabury, 230 ft. from N line, 307 ft. due W of No. 1, Tract 256, Porcion 38.
Drlg. 400 ft.
Harrison et al's No. 4 Guerra, 230 ft. from S and E lines of S 40 acres of Share 12, Porcion 41.
Location.
W. F. Lacy's No. 1 V. R. deFlores, 75 ft. from N line, 107 ft. from E and W lines, Blk. 265, Porcion 38.
S.D. 2,720 ft.
Jack Porter's No. 1 C. E. Smith, 150 ft. from N line, 165 ft. from E line of 8¼ of Tract 278, Porcion 40.
T.D. 2,766 ft.; I.P. 6 bbls. per hr.; ¼-in. choke; 240 lbs. tubing pressure.
H. J. Porter's No. 2 C. E. Smith, N end of 8¼ of tract in Tract 278, Porcion 40.
Spudded.

MERCEDES—HIDALGO COUNTY

Rogers Oil & Gas Co.'s No. 3-B Guerra, 616 ft. from E line, 150 ft. from S line, Tract 254, Porcion 40.
Drlg. 1,260 ft.

Showers & Moncrief, Inc.'s No. 2 C. E. Smith, 230 ft. from N line, 164.2 ft. from E line of Share 3-B, Porcion 41.
Drlg. 1,000 ft.
Skelly Oil Co.'s No. 1-A Seabury, 198 ft. from E line, 230 ft. from S line of 12-ac. tract, Tract 256, Porcion 38.
T.D. 2,813 ft.; I.P. 25 bbls. per hr. on ¾-in. choke; tubing pressure 160 lbs.
Smith & Dayvault's No. 1 Seabury, 100 ft. from N line, 150 ft. from E line of 32.90-ac. tract, Tract 256, Porcion 38.
T.D. 2,915 ft.; flowing oil after bridging; no gauge.
Union Sulphur Co.'s No. 1 American Rio Grande L. & I. Co., 400 ft. S and W of NE cor. of Lot 229, Blk. 59 (W.O.).
Cleaned down to 3,200 ft.
Union Sulphur Co.'s No. 2 American Rio Grande L. & I. Co., 400 ft. S and E lines of tract, Blk. 56, Capisallo district (W.O.).
C.O. to 4,500 ft.; having trouble sidetracking at 4,000 ft.

SANDIA—JIM WELLS COUNTY

Magnolia Pet. Co.'s No. 6 Seeligson, 660 ft. W, 330 ft. S of No. 3, Canales Sur. No. 20.
Drlg. 6,090 ft.
O. K. Killam's No. 6 Wade, 500 ft. S of No. 4.
Drlg. 3,950 ft.

BURNEL—KARNES COUNTY

American Liberty Oil Co.'s No. 1 C. H. Walfmuller, 330 ft. from SE and SW lines of 207-ac. tract, Jas. Johnson Sur.
T.D. 3,475 ft.; P.B. 3,290 ft.; sand 3,293-3,303 ft.; completing.
Luling O. & G. Co.'s No. 1 W. C. Boyce, 150 ft. from NW cor. of tract, J. Johnson Sur.
T.D. 3,370 ft.; rebuilding derrick.

KINGSVILLE—KLEBERG COUNTY

Ray Clark's No. 1 House, Lot 5, Blk. 37, K.T.&I. Co. Sur.
S.D. 1,000 ft.
Fidelity Exploration's No. 1 Paul O. Henry, 150 ft. from N line midway E and W lines of Blk. 2, Sec. 49, K.T.&I. Sur.
Set surface csg. 304 ft.
Fidelity Exploration Synd.'s No. 1 Vivian Kivlin, Sec. 4, Blk. 39, K.T.&I. Sur. on Vivian Kivlin lease.
Derrick up.

JACOB POOL—McMULLEN COUNTY

Loma Oil Co.'s No. 38-A Jacob, 150 ft. from E line of lease, 310 ft. from NE of No. 11-A, Sur. 8.
Spudded.
Loma Oil Co.'s No. 37-A Leonard Jacob Corp., 150 ft. from E line, 330 ft. due N of No. 23-A, W. H. Jacob Sur. No. 8.
T.D. 975 ft.; I.P. 50 bbls. per day.
Loma Oil Co.'s No. 2-W L. Jacob Corp., 220 ft. from E line, 1,320 ft. due N of No. 1-W, W. D. Benham Sur.
Drlg. 800 ft.
M. E. Young's No. 8-A Cox, E of Frio River across line from Lark tract in M. Hely Sur. (old well).
Sand 1,070 ft.; no report.

ANGELITA—SAN PATRICIO COUNTY

Continental and Atkins & O'Neal's No. 3 Welder, 466 ft. from S line, 150 ft. W of SE cor. of Anthony tract, J. Hart Sur.
Set surface csg.; W.O.C.

SINTON—SAN PATRICIO COUNTY

Conroe Drlg. Co.'s (Heep) No. 1-D Welder, N of Sinton.
Set surface csg.; W.O.C.
Heep Oil Co.'s No. 1-E E. H. Welder, 455 ft. out of NE cor. of Sec. 46, Coleman Pasture.
Sand 5,800-30 ft.; set csg.
Plymouth Oil Co.'s No. 2-C E. H. Welder, 2,000 ft. from N line, 660 ft. from E line, Sec. 49, Subd. No. 1 of Eliza H. Welder ranch.
Drlg. 4,150 ft.
Plymouth Oil Co.'s No. 3-C E. H. Welder, 744 ft. from N line, 2,000 ft. from E line, Sec. 49, Subd. No. 1, E. H. Welder ranch.
Drlg. 3,800 ft.
Plymouth Oil Co.'s No. 1-D E. H. Welder, 466 ft. from N line, 466 ft. SE of Ry., Sec. 1, Subd. No. 1, E. H. Welder ranch.
Drlg. 1,900 ft.

LOS OLMOS—STARR COUNTY

H. L. Curry's No. 2 Bass, 660 ft. from S line, 1,835 ft. from E line of 640-ac. tract, Sec. 8, Porcions 75, 76 and 77.
1,250 ft.; no report.
Ed Linberg's No. 6 Bass, 1,350 ft. from W line, 150 ft. from N line of 8¼ of NW¼ of Share 6, Porcion 75-76-77.
Abd. 520 ft.
Ed Linberg's No. 7 Bass, 1,500 ft. from W line, 1,675 ft. from N line of Share 6, Porcion 75.
Drlg. 20 ft.

PLACETAS—STARR COUNTY

Hughston Oil Co.'s No. 1-A Gregg-Wood, S end of Porcion 84; replacement well.
Drlg. 520 ft.

RIO GRANDE—STARR COUNTY

Sioux Oil Corp.'s No. 8 Goodrich, 150 ft. from W line of Blk. 5, 150 ft. from N line of Blk. 5, Porcion 81.
T.D. 1,359 ft.; standing 500 ft. in oil; going on pump.
W. W. Zimmerman's No. 1 D.&C., 2,500 ft. SW of Rio Grande City Field, 150 ft. out of NE cor. of Share 21, Porcion 80, Blk. 7.
Coring 1,345 ft.

SAXET—NUECES COUNTY

Benedum & Trees' No. 1 Stillwell, 330 ft. from W line, 629 ft. from N line, Blk. 31.
Fishing 996 ft.; (corrected).
Houston Oil Co.'s No. 3 Morgan, 990 ft. from E line of lease, 330 ft. from N line of lease, Sec. 7, Range 5.
Location.
Magnolia Pet. Co.'s No. 2 W. W. Walton, 330 ft. from E line, 289 ft. from S line of 92.11-ac. tract, Enrique Villareal Sur.
Location.
Southern Minerals' No. 1-A Rand Morgan, Roberts Sur.
Drlg. shale 4,410 ft.

BRUNI-WEBB COUNTY

Associated Oil Co.'s No. 3 A. M. Bruni, 660 ft. N of No. 2, 330 ft. from W line, 4,-000-ac. tract, Blk. 7, M. Arispe grant.
Location.
American Liberty Oil Co.'s No. 2-C A. M. Bruni Est., 266.81 ft. from E line, 498.15 from S line of Unit 3, Sec. 7, M. Arispe grant.
T.D. 3,427 ft.; P.B. 3,403 ft. after testing wtr.; then P.B. again.
Highland Oil Co.'s No. 8 Bruni, 1,650 ft. from NW line, 330 ft. from NE line, Sur. 7.
Coring 3,407 ft.; had sand 3,387-94 ft.
Highland Oil Co.'s No. 10 A. M. Bruni, 949 ft. NE of No. 3, 506 ft. SE of No. 5, 202.4-ac. tract, M. Arispe grant.
Location.
Highland Oil Co.'s No. 13 A. M. Bruni Estate, 520 ft. E of No. 6, 330 ft. from S line of 200-ac. tract, M. Arispe grant.
Location.
O. W. Killam's No. 36 Bruni, 330 ft. from NE line, 760 ft. from SE line, Sur. No. 6.
T.D. 3,400 ft.; I.P. 35 bbls. per hr.
O. W. Killam's No. 37 Bruni, 330 ft. from NE and SE lines, Sur. 6.
Drlg. 2,005 ft.

LAUREL—WEBB COUNTY

South Texas Oil Co.'s No. 1 Laurel Bros., 100 ft. from E line, 200 ft. from S line of Sec. 269, Blk. 3, C.C.S.D.&R.G.N.G. Sur.
Rebuilding derrick.

WEST COLE POOL—WEBB COUNTY

Ross Barnhart's No. 1 de la Garza, 1,500 ft. from N line, 200 ft. from E line of Sur. 262.
T.D. 2,406 ft.; fishing 1,600 ft.
Carolina Texas O. & G. Trust, Inc.'s No. 11 S. Benavides, 150 ft. from S line, 600 ft. from W line, Blk. 12, Sur. 683.
T.D. 5,000 ft.; making gas and about 30 to 40 bbls. of oil.
Magnolia Pet. Co.'s No. 1-B S. Benavides, 347 ft. from NW line, 313 ft. from SW line, Blk. 290, Arispe grant.
Rigging up.
Magnolia Pet. Co.'s No. 9 A. Benavides, 150 ft. from N line, 300 ft. E of No. 8, Sec. 460, S.K.&K. Sur.
Testing sand 2,335-40 ft.

NOACK—WILLIAMSON COUNTY

Coffield & Lanning's No. 3 Heap, 200 ft. from N line, 225 ft. from W line of tract in White Sur.
Location.
R. R. Ogden's No. 1 Matteck, 150 ft. N and W lines of 108.5-ac. tract in White Sur.
Location.
W. L. Stephens' No. 1 J. P. Carlson, 200 ft. out of NW cor., 900 ft. SE line, 610 ft. SW line of Samuel C. Jones Sur.
Drlg. 65 ft.

TAYLOR—WILLIAMSON SURVEY

H. T. McGee's No. 1 A. J. Heal, 3,100 ft. from SW line, 3,250 ft. NW line, P. Cartwright Sur.
Drlg. shale and boulders 180 ft.

BLAS URIBE—ZAPATA COUNTY

O. W. Killam's No. 10 Bruni, 450 ft. from SW line, 150 ft. from NW line of Blk. 60, Borrego grant.
Drlg. 1,120 ft.

LOPENA—ZAPATA COUNTY

Allen & Morris' No. 1 Pena, 330 ft. out of SW cor. of 230-ac. tract, Share 19, Blk. 19.
Abd. 2,508 ft.
Trowel et al's No. 1 W. Z. Guerra.
Coring brittle shale 1,790 ft.

JENNINGS—ZAPATA COUNTY

Texas Co.'s No. 69 Jennings, 20,046 ft. from SW line, 7,147 ft. from SE line, Cerrito Blanco Sur.
7-in. csg. 1,205 ft.; T.D. 1,213 ft.; swbd. and bailed; 1,030 ft. of fluid in hole after standing 12 hrs.; to run screen and tubing.

MIRANDO VALLEY—ZAPATA COUNTY

C. L. Smith's No. 1 Robert Hinnant, 330 ft. out of NW cor. Sec. 307, Blk. 27, P. M. Makelg Sur.
Drlg. 210 ft.

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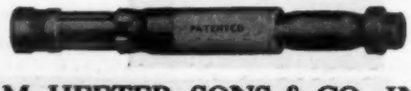

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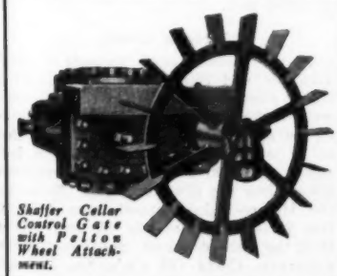

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Among Gulf Coast Drilling Contractors

Smith & McDannald, with eight rigs running on the Gulf Coast, report that the big news with their organization for the week is that production on their suburban Houston property, where the company's offices have been transferred to a handsome colonial mansion from a downtown office building, is increasing rapidly. On last gauge, according to "Cap" McDannald, the daily average was running 11 white leghorn eggs and 10 quarts of Jersey milk. In the Bosco Field, Louisiana, the company has moved a rig from No. 2 Sidney Fall, completed, to No. 6 Larcade, location. The other seven rigs are drilling.

George Echols is preparing to set 7-inch casing at 5,835 feet on a well for Humble Oil & Refining Co. on Thompson ranch, Bee County, after having drilled into heaving shale. Echols is drilling below 6,150 feet on a well for the Felmont Oil Co. in Bee County; is drilling below 3,600 feet at Manvel on a well for the Uscan Oil Co.; is working over a well at Manvel for J. Simmons of Dallas, which will be plugged back 8 feet to cut off bottom water; is drilling a well for Shell Petroleum Corp. at Tomball; has a new location on the Brooks ranch in southern Jim Hogg County for Sun Oil Co., and is drilling on the Mantor and Briggs lease for the Sun Oil Co. in Starr County.

Glenn H. McCarthy, Inc., is preparing to drill a deep test in the Anahuac Field, 1¾ miles north of the north well of Humble Oil & Refining Co. in the field. Anticipated depth is approximately 7,200 feet. McCarthy is also preparing to drill another well on its own properties in the Big Creek Field, Fort Bend County.

J. C. (Jack) Means, president, and M. C. McGehee, Jr., vice president of the Alamo Drilling Co., will leave Houston for New York City this week, where they will spend a week or 10 days. Company has one rig on location for Turnbull & Irwin in the Dickinson Field, Galveston County.

Rutherford Drilling Co. has started work on No. 3 Skelly-Cobb in the Van Vleck Field, Bay City, for Skelly Oil Co. Company is also preparing to drill a well for the Eastern Texas Petroleum Co. in the Placedo Field, Victoria County. Rutherford has just completed No. 3 Seabury in the Sam Fordyce Field, Hidalgo County, for Skelly Oil Co., being the third of three wells recently completed there for the company by this contractor.

San Patricio Drilling Co. has completed No. 4 Theresa Petrie in the Tomball Field for E. J. Nicklos, the second well completed on this property by San Patricio for Nicklos.

Cron & Gracey have two rigs running for Shell Petroleum Corp. at Roanoke, La.; one rig shut down on account of high water at White Castle, La., where it is drilling for Shell Petroleum Corp.; one rig finishing a well, one rig running and one rig setting up for Shell Petroleum Corp. at Iowa, La.; two rigs running at Manvel, Brazoria County, one of which is for Texas Co.; one rig running for Texas Co. in the Port Lavaca Field; one rig running for Sinclair Prairie Oil Co. at Eunice, N. Mex.; and one rig setting up to drill for British-American Oil Co. in East Texas.

Jeff Hooper has completed rigging up on a test for H. B. Herbert and J. J. Still on the Alfred Backen tract, J. H. Hackett Subdivision, John C. Ogburn Survey, Harris County. This test will go to 6,500 feet, and is near the town of Cypress.

Harvey & Rush are drilling for Kirby Petroleum Co. in the big thicket on the line between Hardin and Polk Counties.

C. & C. Drilling Co. is rigging up to drill No. 3 Watt for Gem Oil Co. in the Livingston Field, Polk County; is clearing location to drill No. 2 Watt for T. A. Carlton Oil Co. in the same field, and is rigging up in Galveston County, near the Dickinson Field, to drill an 8,000-foot test for the Coast Petroleum Corp.

Left, George F. McQueen, West Texas drilling contractor and W. L. (Bert) Childs, vice president and general manager of the Reed Roller Bit Co.

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Two More Locations Made in Port Lavaca Field; Montgomery County Wildcat Holds Interest

By F. L. SINGLETON
Gulf Coast Bureau, The Oil and Gas Journal

HOUSTON, Tex., May 27.—Two more locations were made in the Port Lavaca Field, northern Calhoun County, which brings the total number of active tests to seven. The two locations were made by Texas Co. Its No. 1 Charles Geryk, in Lot No. 7, in the Ysidro Benavides Survey. Ten-inch casing was cemented at 1,337 feet and it is drilling below 3,336 feet in shale. Approximately 3,000 feet southwest of the above test and located in the same survey, derrick material is on the ground for No. 1 Kupatt located 466 feet from the south line and 466 feet from the west line of Lot No. 17.

Bottomed in oil sand at 6,262 feet, Haliburton Oil Producing Co.'s No. 1 Dave Burton, an east offset to the discovery well in the M. Sanches Survey, was scheduled to be tested over the week-end. It has encountered approximately 54 feet of saturated sand, first cored at 6,228 feet, and showed considerable oil on two drill stem tests. Casing and screen were cemented on bottom, with the screen set in sand from 6,240-62 feet. Three outpost tests being drilled by the Texas Co. continue to look discouraging. No. 1 Blardone, about 2 miles south of the discovery, cored salt water sand at 6,960-78 feet and is coring below 7,185 feet. No. 1 J. A. Martin, approximately 5 miles southwest of the discovery in the Florentina Garcia Survey, is coring in sand and shale below 6,445 feet, with no shows being reported. Southwest of production approximately 1 mile in the M. Sanches Survey No. 1, Duelberg encountered trouble in trying to sidetrack from 6,112-24 feet and has been plugged back to 6,000 feet, where it will be sidetracked and the hole redrilled to test a sand from 6,256-75 feet.

In Galveston County

Turnbull and Irwin's No. 1 Joe Piazza, in the Dickinson Field, Galveston County, is bottomed in the Frio formation at 8,418 feet and is waiting for cement to set after 7-inch casing was cemented at 8,265 feet. The operators made an electrical coring test of the hole which indicated 8 to 10 ohms, and a test will be made through perforated casing at 7,949-70 feet. No saturated sand has been reported cored and the test will be made in broken sand and sandy shale which are reported to have carried some odors of oil. Location is 250 feet south and 460 feet west of Humble Oil & Refining Co.'s No. 1 Jones, in the J. S. Sherman Survey. In the same survey, Humble Oil & Refining Co.'s No. 1 Fugger is preparing to core for the sand below 8,000 feet.

Montgomery County

In the extreme northern part of Montgomery County, north of the town of Willis, considerable attention is being centered on the wildcat test of Charles B. Gholson's No. 1 Aaron Parker, located in the J. Lindley Survey, which is shut down at a total depth of 3,769 feet, after a 36-minute drill stem test from 3,711-69 feet tested one joint of oil and oil-cut mud, one joint of drilling mud with a slight show of gas, with no water, through a quarter-inch choke on bottom and a three-eighths inch choke on top. It is bottomed in the Cockfield sand topped at 3,695 feet.

This is the fourth test to be drilled in the area, and the third test to be drilled by the above operator. His No. 1 Crawford, located northeast, was abandoned at 4,487 feet and his No. 1 Cabill, located southeast, was abandoned at 4,202 feet. Northwest in the J. Truitt Survey, Sayre Oil Co. abandoned its No. 1 Delta Land Lumber Co. at 5,086 feet.

The well is located on a block of 1,500 acres, with a large majority of the other acreage held by independent operators.

New Salt Dome Discovery

A semi-interior salt dome has been discovered at Boone Brothers' No. 1-D Texas Long Leaf Lumber Co., located approximately 3,000 feet south of the Kittrell Field in the Mary Milsap Survey, Walker County. It topped the salt at 3,855 feet and was cored to 3,905 feet in salt where it is shut down, while the operators make an electrical coring test of the hole.

While the test may or may not be productive, the discovery of a salt dome in this particular area is expected to revive interest throughout the entire district. The nearest interior salt dome region to the test is found in the Boggy Creek Field in Anderson County, approximately 45 miles north, while the nearest salt dome on the Gulf Coast is found at the Clay Creek Dome in Washington County, about 65 miles southwest. The Kittrell Field in Houston County, due north of the test, is producing from the Wilcox formation at approximately 2,200 feet.

Brazoria County

Another east extension was marked up for the Hastings Field, northeastern Brazoria County, by the completion of Stanolind Oil & Gas Co.'s No. 1 Gilbert Sneed in the A.C.H.&B. Survey No. 1. Bottomed in oil sand at 6,100 feet that was topped at 6,010 feet, it made 112 bbls. in nine hours through a three-sixteenths inch choke with tubing pressure 675 pounds and casing pressure 620 pounds. Seven-inch casing was cemented at 6,026 feet. The company made locations for No. 3 Sneed within the proven limits of the field, and No. 1 Hutchinson, an important test, located west of production.

In the southwestern part of the county on what is known as the Rattlesnake Mound area, Amerada Petroleum Corp. has made location for its No. 2 Houston Farm Development Co., 2,150 feet southeast and 5,800 feet southwest of the north center of the B.B.B.&C. Survey, in the Perry and Austin Survey. Southeast of the Peach Point prospect, W. U. Paul and others are reported to have made a tentative deal with C. G. Hamil for the drilling of a deep test on the Lucey B. Hervey lands in the S. F. Austin Survey.

Harris County

Southeast of Houston in the Genoa area, Harris County, West Production Co.'s No. 1 Woodburn is drilling in shale below 6,515 feet. Based on the Frio topped at 5,995 feet, it is checking a few feet higher than other wells drilled in the area. The Discorbis was topped at 5,140 feet and the Heterostegina at 5,555 feet. In the South Houston district, Stanolind Oil & Gas Co.'s No. 1 fee in the H.&T.B. Survey No. 5 is reaming to set a protection string as casing at approximately 5,000 feet to keep the hole from caving. It was originally drilled to 5,069 feet in salt water sand and was plugged back to 4,926 feet to straighten the hole, which was 7½ feet degrees off at 5,000 feet. In drilling to 5,020 feet it failed to get out of the old hole and was plugged back the second time to 4,825 feet. Three sands showing good indications of production are reported to have been encountered, one above the Discorbis topped at 4,500 feet and two below the Frio topped at 4,745 feet.

East of Houston in the Arthur McCormick Survey, T. S. & F. Oil Co.'s No. 1 J. B. Hine, which has been shut down at 3,524 feet after flowing considerable salt water when tested, has started up and is drilling in shale below 3,800 feet.

Jefferson County

In the southeastern part of Jefferson County, on what is known as the McFaddin Beach prospect, Humble Oil & Refining has made location for No. 1 J. T. White, 330 feet out of the southeast corner of the T.&N.O.R.R. Survey No. 370. It is on a large block, part of which is submerged land, leased by the company from the State of Texas the first part of the year.

Montgomery County

The Splendora area, eastern Montgomery County, received another location when Paul Sanderson, acting as trustee for the Kirby Lumber Co., made location for No. 1 Texas Long Leaf Lumber Co., 3,500 feet west and 1,750 feet south of the northwest corner of the Wm. Barker in the Walker County School Land Survey.

Hardin County

Northeast of the town of Kountze in the J. Pearson Survey, Hardin County, Frazier and Greer's No. 1 O. Sternberger, a wildcat test cored salt water sand from 6,845-95 feet and was abandoned at 6,897 feet in the Cockfield sand topped at 6,650 feet.

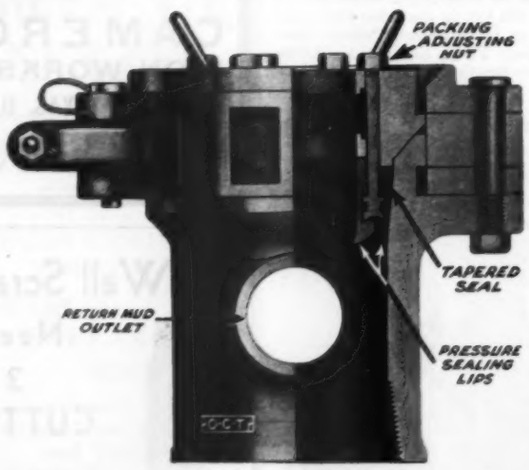
Victoria County

In the Placedo area, Victoria County, Gillespie and Superior Oil & Gas Co.'s No. 1 Farber, northwest of the discovery well in the Nancy Dean Survey, cemented casing at 5,490 feet and is scheduled to be tested during the week. It is bottomed at 6,200 feet, which is somewhat lower than the discovery well. Based on the Heterostegina topped from 4,670-90 feet it is approximately 87 feet higher than the discovery well. Southwest of the discovery, Costa Oil Co.'s No. 1 Schovajsa in the Wm. Rupley Survey is preparing to reset the screen for another test of the shallow sand that tested two stands of sand, and 6 feet of oil last week from 4,779-85 feet. When tested the first part of the week, the well cleaned itself, making considerable gas and a small amount of oil. It is believed that the screen became clogged, and by using a larger mesh in the screen, the operators are in hope of completing the well for a producer.

Important Extension

Approximately 1,000 feet east of production in the north end of the Manvel Field, Brazoria County, Turnbull & Irwin's No. 1 Hart, has apparently made an important extension to the field by

from NEW MEXICO



is echoed the opinion of users wherever this Preventer is in Service!

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DETAILS MAILED UPON REQUEST

coring saturated Oligocene sand from 5,678-87 feet, the total depth, and is reaming to cement casing for a test. It is east of Bowles and Borsodi's Norvell Investment Co.'s holdings, and if it proves to be a producer it will open considerable acreage for development on this side of the field.

In the Bermardo area, Colorado County, it is reported that Clyde Creighton and others have made a deal with J. Tomlinson for a 5,000-foot Cockfield sand test, to be drilled on an old block formerly held by the Shell Petroleum Corp. Magnolia Petroleum Co. is reported to have taken a spread of acreage around the test. In the Rock Island area, Gulf Production Co. has abandoned its No. 1 A. R. Milentz at 5,550 feet.

In Louisiana Field

Fohs Oil Co.'s No. 5 Castle in the southwest part of the Gillis Field, Calcasieu Parish, Louisiana, was completed for the tenth producer for the field when it was finaled at a total depth of 7,075 feet for an initial production of 562 bbls. per day through a ten-sixty-fourths inch choke with tubing pressure 1,085 pounds and casing pressure 1,185 pounds. Oil sand was topped at 7,056 feet and 7-inch casing was cemented at that depth. In the northeast part of the field, Texas Co.'s No. 2 Nickerson is shut down due to high water. Seven-inch casing was cemented at 6,735 feet with the total depth 6,752 feet.

One of the most interesting wildcat tests drilling in Coastal Louisiana is located in East Baton Rouge Parish, where Superior Oil Producing Co. is drilling its No. 1 Duplanter-Community. It is equipped with the largest drilling rig on the Gulf Coast and is capable of going below 15,000 feet if necessary. Late in the week it was coring below 7,497 feet in shale. In a core taken from 6,690-6,720 feet it is reported to have had an oil showing, and from 6,820-55 feet the last 6 feet was brown sand showing oil. Sand showing salt water was cored from 6,985-7,020 feet and is believed to be in the Discorbis at its present depth.

Woodley Petroleum Co.'s No. 1 Thistlewaite Lumber Co., a wildcat test located on a 12,000-acre block in St. Landry Parish, is drilling in shale below 5,853 feet. The Heterostegina was reported topped at 5,762-80 feet. Location is in the NE cor. of Section 68-5s-4e.

Stanolind Oil & Gas Co. is taking a block centering around Sections 9, 10 and 11 in Township 10s-3w, which the company recently worked with reflection seismograph.

Superior Oil Production Co.'s No. "G" Hernandez, located on the eastern side of the Bosco Field, in Acadia and St. Landry Parishes, and south of production in Section 35-8s-3e, extended production 1,000 feet south when it was completed at a total depth of 8,716 feet for an initial production of 351 bbls. in 24 hours through a nine-sixty-fourths inch choke with tubing pressure 2,259 pounds and casing pressure 2,900 pounds. Northeast, but in the same section, the company's No. 8 Larcade has apparently extended the limits of the field another 500 feet east by coring sand to 8,705 feet, the total depth, and is waiting on cement to set with 7-inch casing cemented at 8,684 feet.

Wildcat Operations on Gulf Coast

Week Ending May 25

RACCOON BEND—AUSTIN COUNTY

Humble O. & R. Co.'s No. 8-X Diemar, 1,468 ft. from NW line, 357 ft. from SW line of Wm. Harvey Sur.
T.D. 4,185 ft.; P.B. 3,543 ft.; I.P. 25 bbls. per day, pumping.

Humble O. & R. Co.'s No. 7-X Ollie Wilson, 933 ft. SE from No. 6-X, 250 ft. from NE line, Wm. Harvey Sur.
Cmtd. csg.; T.D. 4,182 ft.; P.B. 2,940 ft.; drilled to 3,140 ft.; 7-in. csg. 3,097 ft.; I.P. 25 bbls. per day on gas lift.

ALLEN DOME—BRAZORIA COUNTY

Mills Bennett Prod. Co.'s No. 4 Rose Allen, 320 ft. SE of No. 1, 300 ft. E of No. 4 Owens, J. G. Mendal Sur.
Drlg. shale 4,130 ft.

DAMON MOUND—BRAZORIA COUNTY

Intercoastal Oil Co.'s No. 13 Wisdom, 150 ft. from NW line and 10 ft. from SW line of Lot "D", Blk. No. 51.
S.D. 2,600 ft.

Gail Whitcomb's No. 1 Wisdom, 300 ft. NE from Shell Pet. Corp.'s No. 4 Allen, A. Darst League.
Abd. 725 ft.

HASTINGS—BRAZORIA COUNTY

Stanolind O. & G. Co.'s No. 1 B. L. Turner, 695 ft. N of S line, 2,550 ft. E of W line of survey.
T.D. 305 ft.; 15-in. csg. 286 ft.

Stanolind O. & G. Co.'s No. 1 Ford, 330 ft. N of S line of 199.37-ac. tract and 1,725 ft. E of W line of A.C.H.&B. Sur. No. 1.
Rig up.

Stanolind O. & G. Co.'s No. 1 Williams, 466 ft. N, 1,126 ft. from most easterly SW cor. of 81.3-ac. lease, A.C.H.&B. Sur. No. 1.
Drlg. shale and lime 4,290 ft.

Stanolind O. & G. Co.'s No. 1 Grote, 460 ft. N and W of SE cor. of 71-ac. lease, A.C. H.&B. Sur.
Drlg. sand and shale 5,566 ft.

Stanolind O. & G. Co.'s No. 1 Sneed, 495 ft. E along S line of Miller lease from SW cor. and 466 ft. S at R/A, A.C.H.&B. Sur. No. 2.
T.D. 6,100 ft.; 7-in. csg. 6,026 ft.; I.P. 112 bbls. in 9 hrs.; 3/16-in. choke; tubing pressure 675 lbs.; csg. pressure 620 lbs.

Stanolind O. & G. Co.'s No. 2 Sneed, 491.5 ft. E, and 1,590 ft. S from NW cor. of Gilbert Sneed 226-ac. lease, A.C.H.&B. Sur. No. 2.
Drlg. shale 5,244 ft.

Stanolind O. & G. Co.'s No. 2, J. W. Surface, 375 ft. S and 466 ft. W from easterly NE cor. of 75.9-ac. lease, A.C.H.&B. Sur. No. 2.
Drlg. shale 4,523 ft.

MANVEL—BRAZORIA COUNTY

Burton Drlg. Co.'s No. 1 Beddoe, 150 ft. from S line, 290 ft. E of W line, Lot 39, H.&T.R. Sur. No. 23.
Drlg. shale 1,310 ft.

Jay Simmons' No. 1 Stitt, located in center of W 5 acres of Lot No. 28, H.T.&B. Sur. No. 23.
T.D. 4,008 ft.; 7-in. csg. 3,990 ft.; tested S.W.; drilled to 4,118 ft.; P.B. to 3,990 ft.; testing.

Harrison & Abercrombie's No. 1 Stevens et al, Center of W 5 acres, E of No. 4, A.C.H. &B. Sur. No. 91.
Swbng. 3,983 ft.

Texas Co.'s No. 2 Gulf Coast Home Co., 347 ft. S, 441 ft. W from NE cor. of Lot 88, H.T.&B. Sur. No. 2-B.
Rigging up.

J. W. Sorrells' No. 1 Swift, Blk. 21, Abst. 218, H. N. Little Sur.
Derrick.

Texas Co.'s No. 10 Houston Oil Field Assn., 419.5 ft. S, 47 deg., 59 ft. E and 263 ft. N 42 deg., 1 ft. E of W cor. of Lot No. 7, A.C.H.&B. Sur.
Drlg. shale and lime 3,872 ft.

Texas Co.'s No. 8-A Belcher, 330 ft. S, 47 deg. 59 ft. E and 265 ft. S 41 deg. 40 ft. W of NE cor. of lease, H. N. Little Sur.
10-in. csg. 1,119 ft.; T.D. 4,048 ft.; P.B. 3,950 ft.; 7-in. csg. 3,930 ft.; completed for gas well on ¼-in. choke; tubing pressure 450 lbs.

Texas Co.'s No. 2 C. P. Dawson, 247.5 ft. S, 449.9 ft. W of NE cor. Lot No. 53, H. T.&B. Sur. No. 23.
T.D. 5,684 ft.; 7-in. csg. 5,654 ft.

Texas Co.'s No. 14-B Belcher, 660 ft. S 42 deg. W from No. 9-B Belcher, H. N. Little Sur.
10-in. csg. 1,208 ft.; T.D. 1,209 ft.

Texas Co.'s No. 1 O. W. Halligan, center of Lot 27, H.T.&B. Sur. No. 23.
Location.

Texas Co.'s No. 1 O. W. Halligan, center of Lot 26, H.T.&B. Sur. No. 23.
Location.

Texas Co.'s No. 3 O. L. Rash, 920 ft. S, 48 deg. E and 330 ft. S, 42 deg. W from N cor. of Lot No. 22, T. Spraggin Sur.
Drlg. shale and lime 3,501 ft.

Texas Co.'s No. 2-A H. J. Wray, 330 ft. from N line and 990 ft. W of E line of lease.
T.D. 5,154 ft.; 7-in. csg. 5,130 ft.; I.P. 260 bbls. per day through ¼-in. choke; tubing pressure 650 lbs.

Texas Co.'s No. 4 A.R.G.G.H., 442 ft. W and 247.5 ft. S of NE cor. Lot 36, H.T.&B. T.D. 6,032 ft.; P.B. 3,500 ft.

Texas Co.'s No. 1 C. P. Dawson, 2,475 ft. S, 441.9 ft. W of NE cor. of Lot 59, H.T.&B. Sur. No. 23.
T.D. 5,645 ft.; 7-in. csg. 5,627 ft.; waiting on orders.

Texas Co.'s No. 17 Houston Oil Fields Assn., 244 ft. S, 244 ft. W from NE cor. of Lot 1, A.C.H.&B. Sur. No. 91.
Location.

Texas Co.'s No. 16 Houston Oil Fields Assn., 247 ft. S, 440 ft. E from NW cor. of Lot 19, A.C.H.&B. Sur. No. 91.
Location.

Texas Co.'s No. 2 Dawson, 247 ft. S, 241 ft. W of NE cor. of Lot 58, H.T.&B. Sur. No. 23.
Location.

Trumba Oil Co.'s (J. M. Campbell) No. 1 H. McCauley, 150 ft. each way out of NE cor. of W 5 acres of Lot No. 2, A.C. H.&B. Sur. No. 91.
Location.

Turnbull & Irwin's No. 1 Hart, center of Lot 10, H.T.&B. Sur. No. 24.
Cored oil sand 5,675-87 ft.; reaming to set csg.

Uscan Oil Co.'s No. 1 Metzer, center of Lot 19, H.&T.R. Sur. No. 23.
Drlg. shale 3,300 ft.

Whittle Oil Co.'s No. 1 Duke, 330 ft. W of

(Continued on Page 73)

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★ Forged Steel
★ Split Gland
★ Tested to 5000 lbs. pressure

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Few Completions, but Many Wells in the Pay in Kansas; Crude Production Remains High

By JAMES McINTYRE

Relatively few completions were recorded in Kansas in the past week, but there were many wells in the near-completion stage. For the first time since the early days of the Burrton Pool there were no completions in that important Reno County Field, the most prolific portions of which are pretty well drilled up.

Morgan & Flynn's important wildcat in Rush County, No. 1 Schlegel, was abandoned in LaMotte sand, where water broke in.

Production in the State remained above the 150,000-bbl. mark, the Burrton Pool leading with 26,800 bbls. per day.

Kansas Production

Estimated daily average production of Kansas for the week ended May 25 and for the preceding week follows:

	Barrels	
	May 25	May 18
Burrton	26,800	28,275
Ritz-Canton	7,250	7,450
Hollow	4,350	3,850
Voshell	4,450	4,575
Johnson	1,340	1,236
Nikkell	4,700	5,000
Sedgwick County	9,825	10,025
Ellsworth County	5,460	5,370
Barton County	1,870	1,995
Rice County:		
Chase Pool	16,404	15,790
Remainder	7,318	7,680
Ellis County	228	163
Kingman County	840	930
Stafford County	2,672	1,732
Russell County	12,425	12,400
Greenwood County	11,100	11,000
Butler County	18,000	17,900
Other pools	17,768	17,104
Total Kansas	152,900	152,475

Russell County

Buffalo Oil Co.'s No. 4 Schaffer-Anschutz, SW NW SW Section 27-13-14w, in Russell County, was completed after it had made a potential production of 1,705 bbls. on the pump, producing from Siliceous lime at 3,269-76 feet.

The Texas Co.'s No. 1 Anschutz, NW NW SW Section 1-14-15w, was good for 273 bbls. of oil after an acid treatment in Oswald lime at 3,078-83 feet, and was completed.

Stearns & Streeter abandoned the location for No. 1 Ball, NE NE NW Section 16-14-15w.

The Texas Co. completed No. 1 Gurney, SW cor. SW NE Section 23-14-14w. It had Oswald lime at 2,956-3,034 feet, which was acidized, the well responding with a production of 185 bbls. in 20 hours. Later it made a potential production of 167 bbls. of oil in 19 hours, but also produced 34 bbls. of water.

The above constituted an unusually small crop of completions for Russell County in a week's time, but a number of near completions are listed in the week's report.

Skelly Oil Co.'s No. 1 Opdycke, SW cor. Section 29-14-13w, stood with 2,800 feet of oil in the hole. Oswald lime was topped at 2,861 feet and showings of oil were found at 2,881-86 feet, 2,980-94 feet and 3,130-31 feet, total depth. It had not been tested for production.

Gypsy Oil Co.'s No. 1 Neidenthal, SE cor. Section 14-14-15w, had Siliceous lime at 3,266-71 feet from which 229 bbls. of oil was swabbed in seven hours, and later 378 bbls. was pumped, was acidized but not yet tested. Same company's No. 2 Neidenthal had Siliceous lime at 3,266-67 feet, total depth, but it had not been given any production test.

British American Oil Co.'s No. 1 Boxberger, NE cor. Section 33-13-14w, had Siliceous lime at 3,280-87 feet, and pumped 441 bbls. of oil in 24 hours. The lime had not been acidized.

Empire Oil & Refining Co.'s No. 2 Ehrlich, SE NE SE Section 28-13-14w, had 3,000 feet of oil in the hole from Siliceous lime at 3,272-79 feet, but had not been tested for production. It had 3,000 feet of oil in the hole from Oswald at 3,000 to 3,091 feet.

Alyward and others' No. 1 Poleyn, SE cor. Section 31-13-15w, had a hole full of water from Oswald lime at 3,150-60 feet and the 6-inch pipe was being underreamed to 3,180 feet; top of the Oswald at 3,060 feet.

Ashby and others also had a hole full of water from Oswald at 3,190-95 feet and were drilling at 3,220 feet in No. 1 Burns, SE SE NE Section 12-13-16w, over the line in Rooks County at the south tip of the Fairport Pool.

Central Petroleum Co.'s No. 1 Ginther, 410 feet from north and east lines of NW quarter Section 30-12-15w, Fairport Pool, has Oswald lime at 3,010-22 feet, total depth, and 2,300 feet of oil rose in the hole in six hours.

New work started in Russell County includes J. M. McMorrow and others' No. 1 Atherton, NW NW NE Section 30-13-14w, moving in material; Empire Oil & Refining Co.'s No. 1 Crawford, NE NE SW Section 2-14-15w, building rig; Central Petroleum Co.'s No. 2 Dortland C, SE NE NW Section 4-14-15w, drilling at 356 feet; Bridgeport Machine Co.'s No. 1 Poleyn, NW NW NE Section 10-14-15w, location; Russell Oil Corp.'s No. 3 Miller, SE SW SE Section 30-14-15w, moving in material (correct ownership); Phillips Petroleum Co.'s No. 1 Sellens, NE NE NW Section 35-15-13w, cellar.

Rush County

Morgan & Flynn's wildcat test in Rush County, No. 1 Schlegel, was abandoned at 3,760 feet. It had Siliceous lime at 3,628 feet, and a hole full of water from LaMotte sand at 3,687-90 feet.

McPherson County

Stafford and others' No. 1 Krehbiel, NW NW SE Section 27-21-3w, McPherson County, which has been shut down for several months at 2,080 feet after deepening from 1,915 feet, has been abandoned.

Tom Palmer's No. 2 Lundberg, NE NW NE Section 30-18-2w, in the McPherson Pool, was good for 295 bbls. of oil in 24 hours after Kansas City lime at 2,280-2,310 feet had been acidized. It was completed.

Roth & Faurot's No. 4 Almen, SW NW SE Section 13-19-3w, Chindberg Pool, made a potential flow of 421 bbls. in 24 hours from chat at 2,948-3,010 feet, at which total depth it was completed.

Shell Petroleum Corp. has a hole full of water at 3,462 feet in No. 7 Decker, 330 feet from south line and 1,025 feet from west line of SE quarter Section 11-19-2w, 8 feet in Siliceous lime. Same company's No. 9 Decker, SW SW NE Section 11-19-2w, topped Viola lime at 3,369 feet, total depth 3,376 feet. It was acidized, and the well pumped 225 bbls. of oil and 12 bbls. of water in 18 hours. It was not completed. Same company's No. 4 Hull, NE NE SW Section 111-9-2w, had Viola at 3,364 feet, and at 4 feet in swabbed 60 bbls. of oil in 10 hours, and later swabbed 10 bbls. of oil and 15 bbls. of water in five hours.

Derby Oil Co. and others' No. 5 Neufeldt, NW NE SW Section 21-21-3w, in the Voshell Pool, was shot with 20 quarts in Siliceous lime at 3,490-98 feet, and the crew was cleaning out. It had previously swabbed 15 bbls. of oil and 7 bbls. of water in a four-hour test.

Tom Palmer made a location for No. 3 Lundberg, SW NW NE Section 30-18-2w. Shell Petroleum Corp. was drilling at 3,060 feet in No. 3 Decker, C SE NE Section 11-19-2w, an old well being deepened from 2,939 feet.

J. M. Washabaugh and others were moving in material for a wildcat test, No. 1-A Berg, SW SW NE Section 15-20-3w, previously reported as Hess & Boersma's operation.

Barton County

Derby Oil Co.'s No. 1 State, 525 feet north and 325 feet west of SE cor. Section 4-20-11w, in the Ellenwood Pool, Barton County, was dry and abandoned at a total depth of 3,368 feet. Siliceous lime topped at 3,317 feet was productive only of water, and the hole was plugged back from 3,368 to 3,360 feet and acidized, with no results.

Stafford County

Lario Oil & Gas Co. and others' No. 1 Tudormorgan, SE SE NW Section 23-24-13w, Stafford County, was completed in Kansas City lime at 3,508 feet, total depth 3,628 feet. It was given a heavy dose of acid and a 300-bbl. oil load and later pumped a potential production of 840 bbls. of oil. It had pumped 349 bbls. in 24 hours before being acidized.

Stanolind Oil & Gas Co. made a location for No. 1-E Allen, SW NW SE Section 31-22-11w, Richardson Pool.

Pratt County

Skelly Oil Co. and others were moving in material for No. 1 Maxedon 990 feet from south line and 440 feet from east lines of NE quarter Section 25-27-11w, Pratt County, west side of the Cunningham Pool, the main body of which is in Kingman County.

Rice County

Sinclair Prairie Oil Co.'s No. 7 Thompson, SE NE NW Section 21-20-10w, Raymond Pool, Rice County, had Siliceous lime at 3,341-44½ feet, which was acidized. The well was completed after pumping a potential of 992 bbls. in 24 hours.

Empire Oil & Refining Co.'s No. 4 Proffitt, NE NW SE Section 6-20-9w, Chase Pool, was completed. It pumped a 629-bbl. potential production from Siliceous lime at 3,260-67 feet, total depth, 3,271 feet, which had been acidized. It had been plugged back 4 feet to shut off water.

Empire Oil & Refining Co.'s No. 6 Proffitt, NE SW SE Section 6-20-9w, had Siliceous lime at 3,254-59 feet, total depth, and was completed when it pumped 812 bbls. in a 24-hour potential test following an acid treatment.

Shell Petroleum Corp.'s No. 2 McFarland, NE NE NW Section 7-20-9w, also in the Chase Pool, was good for 1,592 bbls. in its potential test, producing from

(Continued on Page 71)

Wildcat Operations in Kansas

Week Ending May 25

(Descriptions are East unless marked otherwise)

BARBER COUNTY

Sam Jarvis et al's No. 1 Morrisse, C SE NE Sec. 32-30-10w.
Rig.

Southern Drlg. Co. et al's No. 1 Davis, 330 ft. from W and 330 ft. from S lines of NE Sec. 13-34-15w
T.D. 2,865 ft.; C.O.

L. H. Wentz' No. 1 Skinner, SE NW NW NE Sec. 29-31-14w.
S.D. 2,555 ft.

BARTON COUNTY

Lario O. & G. Co. and McCoy's No. 1 Dolechek, NE NW NE Sec. 12-16-12w.
Drlg. 420 ft.

Lario O. & G. Co. et al's No. 1 Nuss, NW SW SW Sec. 11-16-14w.
Drlg. 2,875 ft.

McMorrow & Spencer's No. 1 Hagen, NE cor. Sec. 33-20-11w.
U.R. 5-in. to 3,512 ft.

C. L. Price et al's No. 1 Ehrlich, NW SE Sec. 10-16-13w.
Drlg. 528 ft.

Pryor & Lockhart's No. 1 Herrington, NE NW Sec. 6-16-12w.
S.D. 519 ft.

Suppes & Witt's No. 1 Hayes, SW cor. Sec. 7-16-15w.
Drlg. 660 ft.

Torry-Feaster et al's No. 1 Feist, NE SE Sec. 29-18-11w.
Moving in material.

Wolf Creek Oil Co.'s No. 1 Kraft, SW cor. Sec. 26-16-11w.
Siliceous lime 3,270 ft.; 300 ft. of oil in hole at 3,396-97 ft.; S.W. at 3,400-02 ft.

BUTLER COUNTY

Hay & Cameron's No. 1 Johnson, NW NW SE Sec. 16-26-6.
S.D. 1,100 ft.

Sanford et al's No. 1 Cron, SE SE SE Sec. 1-28-4.
S.D. 2,281 ft.

Sinclair Prairie Oil Co.'s No. 1 Moore, SE SW SE Sec. 36-24-3.
Location.

Ward McGinnis' No. 1 Jackson, SW NE Sec. 26-25-5.
Drlg. 1,465 ft.

Western Kansas O. & R. Co.'s No. 1 King & Marshall, NW NW SW Sec. 11-28-6.
Spudded and S.D.

CLAY COUNTY

Seidel Bros.' No. 1 Younken, C S½ SE NW Sec. 21-9-4.
Mississippi 1,772-81 ft.; est. 25 bbls. oil and some wtr.; now 5 bbls. oil and 10 bbls. of wtr.

COWLEY COUNTY

Baden, Johnson Roth & Faurot's No. 1 David, NE SW Sec. 35-30-4.
Rigged up.

Lloyd, Frost & Study's No. 1 Weathered, SW SE SE Sec. 28-31-3.
Chat 3,057 ft.; drlg. 3,065 ft.

A. McCoy's No. 1 Brandenburg, SW SE SE Sec. 17-34-5.
Mississippi lime 3,185 ft.; T.D. 3,200 ft.; dry and abd.

ELLIS COUNTY

Tom Palmer and Storm King Oil Co.'s No. 1 Ruder, SE NE NW Sec. 17-15-18w.
Drlg. 1,020 ft.

Stanolind O. & G. Co.'s No. 1 Penney-Wann, NW SW SE Sec. 12-15-20w.
Rigged up.

ELLSWORTH COUNTY

Lario O. & G. Co.'s No. 1 State, SW SW SW Sec. 29-15s-8w.
H.F.W. 3,021 ft.; drlg. 3,177 ft.

Lario O. & G. Co. et al's No. 1 Central National Bank, SE NW Sec. 33-15-8w.
Drlg. 1,675 ft.

Western Exploration Co.'s No. 1 Wilkins, NW SW NW Sec. 9-17-9w.
Drlg. 1,065 ft.

GREENWOOD COUNTY

Foster & Schultz's No. 1 Ferguson, C S½ NE SW Sec. 13-26-13.
Drlg. 1,340 ft.

Mullendore et al's No. 1 Pedroje, NE SW Sec. 14-22-11.
Wtr. 1,945-51 ft.; abd.

HARVEY COUNTY

Cameron, Derby Oil Co. and Trees' No. 1 Brainard, SW SE NW Sec. 19-24-2.
S.D. 2,500 ft.

Goering Bros.' No. 1 Brainard, NE SW Sec. 3-23-2w.
Fishing 1,320 ft.

Hartman & Blair et al's No. 1 Redinger, NW cor. Sec. 15-24-3w.
Cellar.

D. R. Lauck et al's No. 1 Bailer, SW cor. Sec. 29-24-1.
K.C. lime 2,344 ft.; drlg. 2,622 ft.

L. W. Prunty et al's No. 1 Davis, NE cor. Sec. 6-22-1w.
Chat 2,922 ft.; drlg. 2,928 ft.

Twin Drlg. Co. et al's (O. J. Connell), No. 1 Roth, SW cor. Sec. 16-22-2w.
Drlg. 3,250 ft.

Winkler Koch et al's No. 1 Mueller, SE SW NW Sec. 16-23-2w.
Drlg. 650 ft.

KINGMAN COUNTY

Derby et al's No. 1 Bartholomew, SW SW NW Sec. 8-27-4w.
S.D. 30 ft.

(Continued on Page 72)

Flush and Stripper Fields Will Share in Increase in Oklahoma's June Allowable Production

By JAMES McINTYRE

Oklahoma's June allowable production will be 514,200 bbls. per day, and the flush fields and strippers will share the 14,000-bbl. increase. The Fitts Bromide fields will be increased from 13,000 bbls. per day to 15,000 bbls. Oklahoma City outside the Cleveland zone will be unchanged at 152,100 bbls. per day. The Cleveland zone will be increased 400 bbls. Class B fields consisting of Greater Seminole pools will be increased 200 bbls. a day. The Wilcox zone in the Fish Pool gets a 500-bbl. increase. The unprorated pools are given a 7,900-bbl. increase. An increase of 1,200 bbls. is accorded the wildcat wells that are on production.

The Gypsy Oil Co. has made location for an important test in Oklahoma County, 2 miles northwest of the Edmond Field. It will be No. 1 Salsberg, NW NE NE Section 13-14-4w. The Gypsy bought a half interest in 800 acres of leases belonging to the Indian Territory Illuminating Oil Co., agreeing to drill the first well free. The Continental Oil Co. owns the NW quarter of the Section 13 and has joined in a deal with the two other companies but the block is not a community operation. This wildcat will test out the northwest trend theory. Rapp and others drilled a small well in NE NE SW Section 19-14-3w, which is 5 miles west and over a mile south of the Gypsy location. The trend will also have a testing in Riddle Petroleum Co.'s No. 1 Price, SW SE NW Section 30-14-3w. Pure Oil Co. was drilling below 4,500 feet in No. 1 Malm, SE SE SW Section 30-14-3w.

Oklahoma Production

Estimated daily average production of Oklahoma for the week ended May 25 and for the preceding week follows:

	Barrels	
	May 25	May 18
Allen	7,575	8,150
Asher-West Asher	1,300	1,300
Burbank	8,650	8,650
South Burbank	11,000	11,000
Balance Osage	27,000	27,000
Blackwell	4,850	4,850
Bristow-Slick	9,100	9,350
Chandler	5,100	5,500
Crescent	8,925	6,650
Cromwell	4,375	4,475
Cushing-Shamrock	13,300	13,000
Duncan district	4,200	4,200
Edmond	3,100	2,700
Fish	11,175	12,050
Fitts	16,125	16,925
Gray	2,200	2,100
Graham	3,925	3,925
Healdton	9,400	9,250
Hewitt	4,750	4,750
Holdenville	1,500	1,600
Keokuk	1,625	2,050
Konawa	1,975	1,875
Lucien	11,350	11,175
Marshall-Lovell	1,000	1,000
Oklahoma City	160,575	177,750
Papoose	1,300	1,275
Polo	3,375	4,000
Sasakwa and Townsite	2,975	3,025
Sholem Alechem	4,000	4,000
Seminole Field:		
Bowlegs	12,025	11,625
Carr City	6,775	6,500
Earlsboro	10,175	9,925
East Earlsboro	9,550	9,475
South Earlsboro	1,225	1,075
Little River	14,775	15,750
East Little River	875	850
Maud	1,275	1,125
Mission	3,025	3,000
Seminole	9,975	11,350
East Seminole	1,100	1,100
Searight	3,525	3,425
Total Seminole	74,300	75,200
St. Louis-Pearson	27,100	25,575
Tatums	5,100	5,100
Tonkawa-Garber-Thomas	6,000	6,000
Wewoka	3,500	3,475
Yale-Jennings	5,100	5,050
Other pools	56,825	59,725
Total Oklahoma	523,650	543,500

Testing in Coal County

Coal County, which lies just east of Pontotoc County, is to have a 7,000-foot test to be drilled on the Thompson property in C S half NE NW Section 34-2-9, about 12 miles east of the Fitts Pool. The test will be drilled by the Carter Oil Co., Ramsey Petroleum Co., Stanolind Oil & Gas Co., and Mabee Consolidated. It is on a huge structure and the above named owners own about 8,000 acres of it in a solid block. Carter owns half, Ramsey a quarter, and Stanolind and Mabee an eighth each.

Drilling in Major County

Indian Territory Illuminating Oil Co. has started drilling a wildcat that has revived interest on the western side of the State. It is No. 1 Fairview, C SW SE Section 32-22-14w, in Major County, on a block of 7,625 acres.

In the Fitts Pool

Last week's completions in the Fitts Pool were as follows: Manahan and others' No. 3 Reynolds Wagner, NE NE SE Section 18-2-7, found Atoka sand at 1,800-19 feet in March. It was given four small shots with nitroglycerin between the middle of March and the middle of May, and pumped 148 bbls. in 24 hours on its completion test.

E. H. Moore and others' No. 1 McKoy, NE SE SE Section 29-2-7, is an abandoned location.

Carter Oil Co.'s No. 13 Richards, SE SE SE Section 30-2-7, Bromide at 3,840 feet, sands at 3,955 feet and 4,015 feet, and McLish at 4,045-60 feet, total depth, flowed 432 bbls. the first hour, 308 bbls. the second hour, and 200 bbls. the following 45 minutes through casing.

New work in the Fitts Pool and nearby areas includes the following: Leonard Williams and others' No. 1 Breedon, NW NW NW Section 6-2-5, location; Stanolind Oil & Gas Co.'s No. 2 Norris-A, SW NE SE Section 26-2-6, and same company's No. 3 Norris-A, NE NE SE Section 26-2-6, both locations; Edward H. Moore and others' No. 1-A Harper, 405 feet north and 330 feet east of C Section 29-2n-7, a twin to No. 1, moving in tools. Locations were staked for Moore and others' No. 5 Wirick, SW SW SE Section 29-2-7; No. 6, NE NE SW Section 29-2-7; No. 7, NW NE SW Section 29-2-7; No. 8, SW NE SW Section 29-2-7; No. 9, NW SE SW Section 29-2-7, and No. 10, SW SE SW Section 29-2-7. Carter Oil Co. made locations for No. 16 Richards, NE SW SE Section 30-2-7, and for No. 17 Richards, NW SE SE Section 30, and made two locations on the Julia Smith farm, No. 3, SW NE NE Section 31-2-7, and No. 4, SE NE NE Section 31.

In northern Pontotoc County, McKibbi and others were rigging up machine for No. 1 Reeves, NW SW SE Section 24-4-7, in the East Ada district.

Stanolind Oil & Gas Co.'s No. 6 Morris Royalty Co., SW SW SE Section 25-2-6, flowed 52 bbls. in eight hours at a total depth of 4,287 feet. Bromide was topped at 4,150 feet and first sand at 4,246 feet.

Edward H. Moore and others' No. 2 Wirick, C NE SE SW Section 29-2-7, in the Fitts Pool, which was completed last August having produced initially 1,361 bbls. in 24 hours from pay at 3,951-97 feet, and later deepened to 4,042 feet at which depth it flowed 465 bbls. in three hours through 6-inch casing was further deepened recently and at 4,140 feet it flowed 815 bbls. in six hours through 2½-inch tubing run to 4,058 feet. It got second sand at 4,038 feet and McLish lime at 4,064 feet.

Osage County

Completions in Osage County included the following wells:

Kewanee Oil & Gas Co.'s No. 1, NE cor. Section 5-22-11, plugged back from 1,726 feet to 1,250 feet, in Big lime and acidized. It pumped 52 bbls. of oil and 24 bbls. of water in 24 hours.

Champlin Refining Co.'s No. 9, near C NW SE NW Section 16-24-7, Bartlesville sand at 2,603-35 feet, shot with 60 quarts, flowed 152 bbls. in 24 hours.

Continental Oil Co.'s No. 5, 300 feet from north and 990 feet from east lines of SE quarter Section 21-24-7, drilled with a rotary, Bartlesville sand at 2,567-2,661 feet, shot with 150 quarts, flowed 205 bbls. in 24 hours.

Continental Oil Co. and Gypsy Oil Co.'s No. 12, SW SE NE Section 21-24-7, Bartlesville sand at 2,571-2,664 feet, shot with 150 quarts, flowed 417 bbls. in 24 hours.

Carter Oil Co. and Peters Petroleum Co.'s No. 3 Cook, SW SW NE Section 9-25-6, Bartlesville sand at 2,665-2,748 feet, dry. Plugged back to Chat at 2,777 feet, total depth 2,821 feet. Plugged back to 2,725 feet and shot with 160 quarts. Estimated initial flow was 150 bbls.

First reports of new operations in Osage County include Barnsdall Oil Co.'s No. 29, 810 feet north and 1,000 feet east of C Section 30-21-9, location; Johnson Oil & Refining Co.'s No. 14, 550 feet south and east of C Section 30-21-9, location; Ohio Osage Oil Co.'s No. 7, 700 feet south and 1,240 feet east of NW cor. Section 34-21-9, location; Mid-Continent Petroleum Corp.'s No. 1, C NW NW SE Section 30-22-8, moving in material; Continental Oil Co.'s No. 7, NW SW SE Section 21-24-7, rigging up rotary; Lewis Production Co.'s No. 5, 980 feet from south and 300 feet from east lines of SW quarter Section 21-24-7, and No. 6, 300 feet from north and 980 feet from west lines of SW quarter Section 21-24-7, locations; Lewis Production Co.'s No. 8, 300 feet from south and 980 feet from west lines of NW quarter Section 21-24-7, location; Danciger Oil & Refining Co.'s No. 1, NE NE SE Section 1-25-6, a location for a wildcat test.

Noble County

In the Lucien Pool, Noble County, Stanolind Oil & Gas Co. and Amerada Petroleum Corp. completed a 6,380-bbl. well in No. 2 Frederick, C NE SE Section 28-20-2w, producing from Misener sand at 4,972-82 feet. The well made 902 bbls. the first four hours, with gas estimated at 15,000,000 feet per day. It was shut in for tankage and later flowed 1,595 bbls. in six hours, after which it was shut in and completed. It was estimated to be good for 6,380 bbls. in 24 hours.

Magnolia Petroleum Co.'s No. 1 Viets, C SW SW Section 27-20-2w, had second Wilcox sand at 5,143 feet, total depth 5,155 feet, but it showed nothing and

Wildcat Operations in Oklahoma

Week Ending May 25

NORTHERN OKLAHOMA

BLAINE COUNTY

Earl Ingrahm et al's No. 1 Masters, SW NW NW Sec. 27-16-11w.
Drlg. 1,240 ft.

CADDO COUNTY

Denver Prod. & Ref. Co.'s No. 1 Sah-Can, C SE SE Sec. 33-10-10w.
Drlg. 6,300 ft.

H. W. Lee et al's No. 1 Horton, NE NE NE Sec. 9-6-13w.
Rigged up; S.D.

H. W. Lee et al's No. 1 Stacey Ferrell, SW NE NE Sec. 3-6-13w; (2,000-ft. test).
S.D. 2,280 ft. for repairs.

CANADIAN COUNTY

R. Carl Larkin's No. 1 Brobine, NW NW NE Sec. 33-13-5w.
Drlg. 6,745 ft.

CLEVELAND COUNTY

Sinclair Prairie et al's No. 1 Franklin, SE NW SE Sec. 21-10-2w.
Hunton 6,780 ft.; Viola 6,937 ft.; Simpson 6,987 ft.; cored from 7,051 ft. to 7,256 ft.; T.D.

COAL COUNTY

Carter Oil Co. et al's No. 1 Thompson, C S½ NE NW Sec. 34-2-9.
R.U. for 7,000-ft. test.

J. D. Petty Oil Co.'s No. 1 McMillan, SW NW NE Sec. 16-1s-8.
S.D. 1,368 ft.

GARVIN COUNTY

Anderson & Kerr et al's No. 1 Rodke, NW NW SE Sec. 17-4-1w.
Location.

Charles Carter and W. S. Key, Inc.'s No. 1 Wood, C NW SW SE Sec. 5-4-3e.
S.D. 2,405 ft.

GRANT COUNTY

Helmerich & Payne's No. 1 Crouse, C NE SW Sec. 29-25-3w.
Drlg. 6,185 ft.

GREER COUNTY

M. C. Ent and R. C. Camp's No. 1 Simington, SW SE Sec. 29-5-21w.
T.D. 50 ft.

Glad Oil Co.'s No. 1 Luker, SE cor. Sec. 6-4-31w.
Drlg. brown shale 1,114 ft.

Morgan et al's No. 1 Carder, C SW SE Sec. 19-4-22w.
Gas showing 2,220-24 ft.; drlg. 2,375 ft.

W. Y. Rockwell et al's No. 1 Stephens, C S½ S½ SE Sec. 32-6-24w.
Machine.

HUGHES COUNTY

Caprock Oil Co.'s No. 1 Parks, SW SW SE Sec. 34-7-8.
Location.

Dandridge & Crane's No. 1 Mead, NW NW NE Sec. 17-5-9.
Drlg. 1,511 ft.

Freeman et al's No. 1 Kite, NW NW NE Sec. 5-6-10.
Top sand 700 ft.; show oil; S.D.

Texas Co.'s No. 1 Keaton, NW SW Sec. 4-8-10.
Cromwell 3,037 ft.; drlg. 3,365 ft.

KAY COUNTY

Bay Oil Co.'s No. 1 Holden, SW SW SE Sec. 14-28-3.
5-in. 2,945 ft.; drlg. plugs.

Lewis Prod. Co.'s No. 1 Summers, SW cor. SE NW Sec. 17-27-2.
Building rig.

J. T. Lindsay's No. 1 Waggoner, NW NW NE Sec. 3-27-1.
Drlg. 770 ft.

KIOWA COUNTY

Rajah Oil Co.'s No. 3 Stone, C SE NE Sec. 34-7-17w.
Drlg. 735 ft.

LINCOLN COUNTY

Carter Oil Co. et al's No. 1 McFarland C-38, SW SW NE Sec. 18-13-4.
Wilcox sands at 5,279 ft. and 5,335 ft.; T.D. 5,345 ft.; will make Schlumberger test.

Chester L. Carlock's No. 1 Young, C N½ NW NW Sec. 23-15-5.
R.U. rotary.

Mid-Continent Pet. Corp. et al's No. 1 Nunn, SE SE NW Sec. 25-15-1.
Drlg. 4,235 ft.

Chas. Ralph's No. 1 Young, C N½ NW NW Sec. 23-15-5.
Spudded and S.D.

Stanolind et al's No. 1 Campbell, SW NW Sec. 2-14-2.
Wilcox sands at 5,075 ft. and 5,127 ft.; 4,800 ft. of wtr. in hole; abd.; T.D. 5,139 ft.

Stanolind O. & G. Co. and Amerada Pet. Corp.'s No. 1 Cavanaugh, SE NE Sec. 31-15-5.
T.D. 3,661 ft.; show of oil and 2,500 ft. of wtr. in hole; will P.B. and shoot.

Texas Co.'s No. 1 Palmer, SE SW NW Sec. 28-14-5.
R.U. rotary.

LOGAN COUNTY

Anderson-Kerr et al's No. 1 Renfrow, NE cor. Sec. 33-16-4w.
Mississippi lime 6,470 ft.; T.D. 6,640 ft.; lost circulation.

Freeland et al's No. 1 Scrutchfield, NW NW NE Sec. 9-16-1e.
Location.

Houghton Royalty Co.'s No. 1 Townsite, SW SW SE Sec. 13-17-1w.
Bldg. rig.

Sinclair Prairie and Slick Urschel's No. 1 Koatsch, SW cor. Sec. 22-15-3w.
Second Wilcox 6,322 ft.; T.D. 6,332 ft.; shot with 5 qts.; swbd. 5 bbls. per hr.

Slick-Urschel et al's No. 1 Pennington, C SW NE Sec. 10-16-1w.
Simpson dolomite 5,534 ft.; Wilcox 5,581 ft.; no show; lost circulation at 5,587 ft.

(Continued on Page 72)

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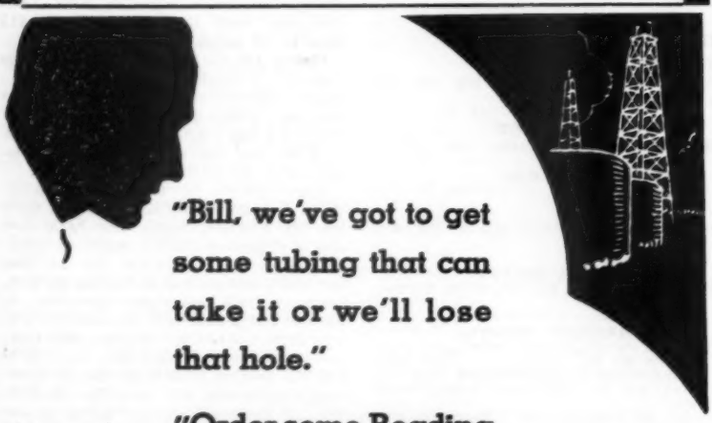
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the hole was plugged back to 5,098 feet and first Wilcox sand at 5,081-98 feet was shot with 40 quarts. It swabbed 128 bbls. of oil. It was not completed.

Phillips Petroleum Co. has cellar dug for No. 1 Lee, C NE NW Section 3-19-2w, Logan County, in the Lucien district.

In the Polo Pool in Noble County, Atlantic Oil Producing Co. and others completed a 2,400-bbl. well in No. 1 Estes Porter, C SE NW SW Section 22-22-2w, the most northerly well in the pool, extending production half a mile. It also produced gas at the rate of 4,262,000 feet per day. It is a Dolomite producer at 4,910-34 feet. The well came in early in May. It was acidized about the middle of the month and responded with a flow of 637 bbls. in its six-hour potential test and was given a 2,400-bbl. potential rating.

Stanolind Oil & Gas Co.'s No. 1 DeBord-A, NW NE SW Section 27-22-2w, was given a potential rating of 2,717 bbls. per day. It produces from Wilcox sand at 4,860-97 feet and flowed 694 bbls. in six hours on its potential test. It had previously flowed 847 bbls. in six hours.

Stanolind Oil & Gas Co. and others' No. 4 DeBord-B, NW SW SW Section 27-22-2w, was completed and given a potential of 1,524 bbls. based on its 442-bbl. flow in six hours from Wilcox sand at 4,867-81 feet. It also showed gas at the rate of 1,126,000 feet.

Stanolind Oil & Gas Co.'s No. 7 Voss, SE cor. Section 28-22-2w, had sand at 4,823-52 feet and flowed 360 bbls. in six hours and was rated potentially at 1,147 bbls. It produced gas at the rate of 988,-000 feet per day. It was completed.

Stanolind Oil & Gas Co. made a location for No. 5 DeBord, SW SW SW Section 3-22-2w, and No. 6 DeBord, SE NW SW Section 27-22-2w, and for No. 8 Voss, NE SW SE Section 28-22-2w.

Logan County

Carter Oil Co. and Gypsy Oil Co.'s No. 3 Herren, C NW NE Section 28-17-4w, in the Crescent Pool, Logan County, was twice acidized and then shot with 480 quarts of nitroglycerin at 6,202-48 feet and the hole filled with oil, but did not flow. The shot was in the first Wilcox sand to which the hole had been plugged back from a total depth of 6,350 feet. Second sand was topped at 6,336 feet and showed 2,000 feet of oil in the hole after being bailed down.

Helmerich & Payne and the Gypsy Oil Co.'s No. 1 Moss, SE SE SW Section 11-17-1w, in the Langston Pool, was shot with 500 quarts at 5,117-74 feet in Wilcox sand, and later swabbed 40 bbls. of oil and 25 bbls. of water in 24 hours. It was being cleaned out.

Murray County

Gillette & Kroeger abandoned the location for No. 1 Robbins, NE NE SE Section 31-1n-4, Murray County.

Pawnee County

Robinson Drilling Co.'s wildcat test in Pawnee County, No. 1 Cockrell, SE SE NW Section 28-23-4, was abandoned at a total depth of 3,433 feet. It had sand at 3,392-3,433 feet and a hole full of water. It was plugged back to 3,096 feet and drilled to 3,124 feet and acidized, but showed only 5 bbls. of oil and a hole full of water.

McClain County

Anderson & Kerr's No. 1 Newburn, NW SW NE Section 24-5-3, McClain County, was abandoned at 2,945 feet. It had Wilcox sand at 2,933-45 feet, which was dry. It was plugged back to 2,670 feet and given two 10-quart shots with no results.

GREATER SEMINOLE

Pottawatomie County

Huckleberry and others' No. 1-A Gray, SE SE SW Section 25-6-4, in the Gray Pool, Pottawatomie County, is a 60-bbl. pumper completed in Peru sand at 2,-908-32 feet, total depth 2,955 feet.

Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 3 Palmer, NE NW NW Section 36-6-7, Sasakwa Townsite, Seminole County, pumped 101 bbls. of oil and 201 bbls. of water from Wilcox sand at 4,081-92 feet, and was completed.

Sinclair Prairie Oil Co.'s No. 1 Coppedge, SE SE NW Section 16-7-8, Holdenville Pool, Hughes County, had Booch sand at 2,927 feet, total depth 2,988 feet. It was given three shots of nitroglycerin and responded with a 45-bbl. production. It was completed.

Jack Shaffer's No. 1 Sarkey, SE NE SW Section 31-7-8, Fish Pool, Seminole County, was dry and abandoned at 4,125 feet. It had no showings.

Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 2 Sarkey-B, NW NW SE Section 31-7-8, found Wilcox sand at 4,185-4,214 feet. On its completion test it flowed and swabbed 225 bbls. in six hours.

Barnsdall Oil Co.'s No. 3 H. Davis, NE SE NE Section 30-8-4, St. Louis Field, Pottawatomie County, was completed in Hunton lime at 4,390-95 feet. It pumped 86 bbls. in 48 hours with 10 bbls. of water.

Carter Oil Co. completed No. 1 Seran, C SE NW Section 2-11-8, Dill Pool, Seminole County. It had Hunton lime at 3,906-31 feet, and pumped 371 bbls. net in 17 hours after an acid treatment. Later it flowed 170 bbls. in four hours, and on the following day 115 bbls. in 11 hours.

First reports in the Greater Seminole area include Atlantic Oil Producing Co.'s No. 1 Patterson, SW SW NE Section 8-6-7, location; same company's No. 1 Vierson, NE SW SE Section 8-6-7, location; Magnolia Petroleum Co.'s No. 2 Billington, SE SE NE Section 11-7-4, Pottawatomie County, location; Stewart Egan and others' No. 3 Brister, SW NW NE Section 28-7-4, building rig; J. H. Vinson and others' No. 3 B. F. Davis, SE SW NE Section 30-7-4, cellar and pits; Caprock Oil Co.'s No. 1 Parks, SW SW SE Section 34-7-8, Hughes County, location for a wildcat test.

Carter Oil Co. and others' No. 4 Riddle, C N half NW SE Section 35-11-6, Keokuk Pool, Seminole County, flowed 362 bbls. in 24 hours through casing and on the following day flowed 248 bbls. in eight hours through tubing. Misener sand was topped at 4,112 feet and Hunton lime at 4,122 feet, total depth 4,124 feet. It was not completed.

Magnolia Petroleum Co.'s No. 1 Brown, C E half SE NW Section 14-10-6, South Keokuk Pool, Seminole County, flowed 350 bbls. in 36 hours from Misener sand at 4,117 feet. It was drilling at 4,125 feet.

Oklahoma County

One completion in the Edmond Pool, was the only one in Oklahoma County. Amerada Petroleum Corp.'s No. 2 Suen-

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ram, NW NE NE Section 6-13-3w, flowed 2,014.29 bbls. in four hours on a potential test, with gas at the rate of 11,023,000 feet. The well produces from Wilcox sand at 6,605-76 feet, total depth.

Sunray Oil Co., Wirt Franklin Petroleum Corp. and Fain's No. 1 County, 79 feet from north and 687 feet from east lines of NW quarter Section 1-11-3w, twisted off drill stem and was further delayed last week by high water. It was shut down at 5,317 feet.

Okfuskee County

Deardoor and others' No. 2 Fields, C E half SE NW Section 14-10-11, in the Weleetka district, Okfuskee County, was a hole full of water at 2,183 feet and was abandoned.

Lincoln County

Stanolind Oil & Gas Co.'s No. 1 Campbell, SW SW NW Section 3-14-3, a wildcat northeast of the West Chandler Pool, in Lincoln County, had nothing but water from Wilcox sands at 5,075 feet and 5,127 feet, total depth 5,139 feet, and was abandoned.

In the Southern Fields

Harry Ables completed a failure in No. 7 Akers (a twin), 200 feet from the north and 660 feet from the east lines of NE quarter Section 11-1n-5w, in the Doyle Pool, Stephens County. It had sand at 1,035-42 feet which had a showing of oil in the top and water in the bottom, and the hole was abandoned at 1,335 feet. In the same area Clark & Cowden scored a failure in No. 5 Lena Simpson, 200 feet east and 1,120 feet north of C Section 11-1n-5w. It was dry in sand at 1,786-1,841 feet, and was bottomed at 1,850 feet.

In the Altus area in Jackson County, Burk Royalty Co.'s No. 1 W. A. Gore, SE NE SE Section 3-1s-20w, was dry and abandoned at 1,909 feet. It was a wildcat test which had been shut down since December.

In the Velma area in Stephens County, Reese and others No. 1-A Jones, 1,170 feet from south and 150 feet from west lines of SE quarter Section 23-1s-5w, is a 5-bbl. completion at 614-26 feet. Mudge Oil Co.'s No. 40 Woods, SE cor. NE NW Section 26-1s-5w, is an 8-bbl. well, completed in sand at 684-710 feet.

In the old Empire City Pool in Stephens County, George Pace and others' No. 6 Allen, SW cor. SE SW NE Section 3-2s-8w, was abandoned at 2,160 feet. It had showings in sands at 1,913-15 feet, 2,133-43 feet, and 2,146-48 feet, but they would not pay. George Pace and others' location for No. 5 Pitts, SW cor. NE NW SE Section 3-2s-8w, was abandoned.

In Carter County, Tucker & Clowe's No. 1 Woodworth, NW cor. NE NW Section 20-4s-2w, Hewitt Field, is a 20-bbl. well from a sand series at 1,451 to 1,746 feet.

In Jefferson County, Mitchell & Kilbourne have a 12-bbl. well in No. 7 Burge, SE cor. Section 25-7s-5e, in the Enos Pool, completed in sand at 515-22 feet. Levelle Coal Co.'s No. 6 Eppler, NE cor. Section 36-7s-5e, was completed as a 15-bbl. well, also making 40 bbls. of water, from sands at 513 to 543 feet. Charles Newsom completed No. 3 fee, SW cor. NW NE SE Section 36-7s-5e, a 12-bbl. pumper from sand at 482-95 feet. In the Isom Springs Pool, in Jefferson County, Centrop Oil Corp.'s No. 3 Minter, 165 feet north and 457 feet east of SW cor. Section 30-7s-6e, is a small completion in sand at 491-501 feet. Fleming & Kimball's No. 6 Snell, 1,385 feet south and 165 feet east of NW cor. Section 31-7s-6e, was completed as a 12-bbl. pumper from sand at 445-61 feet. G. L. Priest has a 10-bbl. completion in sand at 550-57 feet in No. 4 Cope-Sublett, NE cor. SE SW NE Section 1-8s-5e.

New Work in Southern Fields

George Pace and others were moving in tools to start a wildcat test, No. 1 Daily, NE NE NE Section 26-1n-8w, east of the North Duncan Field in Stephens County.

A wildcat test in Harmon County is located about 6 miles east of the Texas Panhandle line. It is J. J. Mathis' No. 1 Keith, SE NW SW Section 12-5-26w.

In the western end of Greer County, W. Y. Rockwell and others have machine in to start a wildcat test on a structure that has been worked by surface geology and magnetometer. It is No. 1 Stephens, C S half S half SE Section 32-6-24w.

Wirt Franklin Petroleum Corp. will deepen No. 1 Barber, NW cor. Section 4-1s-8w, Duncan Field. Present total depth is 1,875 feet. The crew was rigging up tools.

Shasta Oil Co. was drilling at 1,200 feet in No. 9 Cobb, NE cor. SW SE NE Section 2-2s-10w, Cotton County, in the Walters district.

Bridwell Oil & Gas Co. has rig up for No. 1 Nigh, NW cor. NE SE SW Section 11-2s-8w. W. J. McAllister made a location for No. 1 Montgomery, SW cor. NW SE Section 11-2s-8w, in the South Duncan Field in Stephens County.

Skelly Oil Co. made location for No. 2 fee, NE NW SE Section 17-2s-2w, in the Wildcat Jim Pool, Carter County. Shell Petroleum Corp. was drilling at 350 feet in No. 52 Franklin, 535 feet north and 975 feet east of C Section 8-4s-3w, in the Healdton Field, and was drilling at 30 feet in No. 53 Franklin, 1,280 feet from north and 980 feet from west lines of NE quarter Section 8-4s-3w.

Rajah Oil Co. had gas at 933-44 feet and oil at 942-82 feet in its No. 3 Stone, C SE NE Section 34-7-17w, in the Gotebo area, Kiowa County, and may acidize. Viola lime was topped at 880 feet.

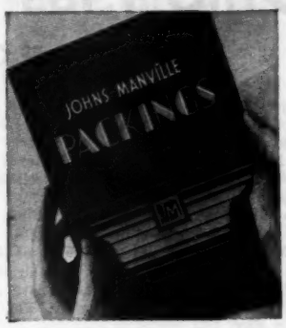
Lloyd Noble's No. 1-A Davis, NE SE NW Section 6-5-9w, Caddo County, was shut down at 3,370 feet, but the owner may deepen. It has had various oil showings from 2,765 feet down to the bottom.

Magnolia Petroleum Co.'s No. 7 Harrison, SE cor. NE Section 28-3-5w, in the Knox Pool, Garvin County, flowed 79 bbls. the first day and 96 bbls. the second day from sands at 2,430 to 2,461 feet. It had not been completed.

Manson Oil Co. and others' No. 1 Minor, NW NE NE Section 15-1n-20w, in the Altus Pool in Jackson County, was in granite wash at 1,414-54 feet with 900 feet of oil in the hole, but the rig burned down delaying a test of the pay. The crew was repairing a machine. This well had made 2,000,000 feet of gas and an estimated 15 bbls. per day of oil at 1,319-26 feet, granite wash.

Dixon Oil Co.'s No. 1 Johnson, NE SW SE Section 17-1n-8w, Duncan Field, Stephens County, was a hole full of water from sand at 2,365-76 feet, and was shut down.

Packing Problems?



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HOUSTON, TEXAS

West Virginia Oriskany Sand Test Proves Dry; Southeast Ohio Has Best Producer of Week

By STAFF CORRESPONDENT

PITTSBURGH, Pa., May 27.—Another Oriskany test in West Virginia proved to be a dry hole. In Elk district, Kanawha County, Clyde Oil & Gas Co. drilled on the F. W. Shinn (Margaret McGraw) farm through the Oriskany sand to a total depth of 4,849 feet, and it was void of any showing. The top of the sand was at 4,836 feet and 6-inch casing had been run to 4,831 feet. This test is on Little Coopers Creek, about 1,000 feet north by northeast of the producer on the W. L. Burdette farm. This producer is now making about 11 bbls. a day.

Among the deep tests in this district, Benedum and Trees reached 4,350 feet and shut down cementing a bad hole on the Mary C. Wingfield farm. Yoak Oil & Gas Co. is drilling at 4,015 feet on the W. T. and J. H. Goshorn farm. Columbian Carbon Co. is down 615 feet on the G. and D. Copenhaver farm.

In Malden district, this company is drilling at 340 feet on the W. D. Lewis farm. Godfrey L. Cabot, Inc., has reached 580 feet on the Pius R. Levi farm. In Loudin district, this operator is drilling on the Edgewood Realty Co. lease and has reached 2,240 feet. In Jefferson district, Benedum and Trees are drilling at 3,600 feet on the Joseph Hill farm.

Summing up the recent deep tests in the lower Eastern fields, there have been three completions and four dry holes. In Malden district, Godfrey L. Cabot, Inc., has an Oriskany sand gas well gauging over 1,000,000 feet a day. In Elk district, Grosscup and others have the only producer on the W. L. Burdette farm. In Columbiana County, Ohio, Natural Gas Co. of West Virginia has an Oriskany sand gas well now reported good for 2,000,000 feet a day on the William Jenkins farm.

There were 20 completions and 8 dry holes in the lower Eastern field during the week. There are 12 gas wells and 8 producers with an initial production of 152 bbls. The largest producer was a fair test in Southeast Ohio.

SOUTHEAST OHIO

In Muskingum County, H. W. Scott and others completed a fair test on the William Myers farm in the SW ¼ of Section 5, Licking Township. It was drilled in the Clinton sand at a depth of 3,191 feet and, after shot, produced 100 bbls. the first day.

In Athens County, Gross and Frehault completed a second test on the A. Varity farm, near Fisher in Section 30, Alexander Township. It is a gas well gauging about 150,000 feet a day from the Macksburg sand at a depth of 560 feet.

In Medina County there were two operations. On Tract 13, Lot 2 and 3, Chatham Township, Oko Oil & Gas Co. completed No. 67 on the Henry Essig farm in the Berea Grit at 424 feet. It produced 10 bbls. the first day after shot. On Lot 55, in this township, Hubert J. Allis drilled No. 3 on the Charles and Westa Allis farm through the Berea Grit to 538 feet, and it was dry.

In Meigs County three gas well were completed. In the SW ¼ of Section 36, Lebanon Township, Meigs Development Co. completed a test on the Charles Circle farm in the Berea sand at 1,944 feet, showing for 1,750,000 feet a day. There are two farms of 40 acres mapped as the Charles Circle farm and this one is the north 40 acres. In the SE ¼ of the section, this company completed a test on the Elias Jividen farm in the same formation at a depth of 1,810 feet. It gauges 320,000 feet a day. In the SE ¼ of Lot 1,177 of this township, Leroy Holmes and others completed a test on the Frank Holter farm in the Berea at 1,916 feet. It is also a gas well and gauges about 500,000 feet a day.

In Monroe County, A. E. Robinson and others completed a second test on the May Crum farm in the SW ¼ of Section 9, Franklin Township, in the Salt sand at a depth of 920 feet. It is a gas well with an initial volume of 500,000 feet a day.

In Morgan County, Charles D. Mosher and others completed No. 8 on the Charles Yarnell farm in the central part of Section 1, Windsor Township in the Cow Run sand at 617 feet. It will make about a 2-bbl. pumper.

In Perry County, Kachelmacher Estate drilled No. 8 on the Hemlock Coal Co. tract in the SE ¼ of Section 25, Coal Township. It was drilled through the Clinton sand to 3,582 feet and there was no showing of oil or gas.

In Washington County there were three dry holes. In the western part of Section 2, Palmer Township, McCoy and Lochary drilled No. 4 on the L. T. Hale farm through the Cow Run sand to 590 feet and it was dry. In the NE ¼ of Section 8, same township, J. H. Anderson and others drilled a second test on the N. E. Russell farm through this formation to 576 feet without production. In the SE ¼ of this section, Robert W. Turney and others drilled No. 16 on the Myron E. Leasure farm through the Peaker sand to 546 feet, and it was also dry.

SOUTHWEST PENNSYLVANIA

There were no completions and only one dry hole in Southwest Pennsylvania. In North Franklin Township, Washington County, George Bungard & Co. drilled a test on the Fred Ward lot to a 935 feet through the Dunkard sand, and it was dry. The Pittsburgh Coal was at 473 feet.

In East Findley Township, Pitroi Fuel Co. is drilling at 1,020 feet on the Harvey F. Taylor farm, a test. In Morris Township, Carnegie Natural Gas Co. shut down drilling deeper No. 1 on the S. L. Harvey farm at 2,858 feet. The top of the Fifty Foot sand was at 2,773 feet with about 65,000 feet of gas showing at 2,774 feet. The bottom of the sand was at 2,781 feet. The gas was turned in the lines for test.

In Amwell Township, Washington County, F. K. Fawcett and others are drilling at 385 feet on the Tucket heirs farm. Raymond Orrill and others have a rig standing for No. 5 on the G. L. Walker farm. The test of the Carnegie Natural Gas Co. on the R. M. Carrons No. 2 farm showed a volume of over 1,000,000 feet in the Murphy sand at 865 feet and this is now turned in the lines for test. It blew down to about 360,000 feet a day.

In Greene County, H. E. Milliken and others are down 2,415 feet in deepening No. 1 on the S. B. Smith farm, Jackson Township. In Gilmore Township, Johnson and Eddy are drilling at 2,830 feet on the W. L. B. Roberts farm, No. 2. In Cumberland Township, Carnegie Natural Gas Co. is down 2,550 feet deepening No. 2 on the Hester Stephenson farm.

In South Union Township, Fayette County, William Snee and others have reached 2,293 feet in the deep test drilled on the Summit Hotel property. The following is a continuation of the log to date: 1,539-50, slate; 1,559-1,603, slate and shells; 1,603-09, sand; 1,609-84, slate and shells; 1,684-95, sand; 1,695-1,792, slate; 1,792-1,802, sand; 1,802-36, slate; 1,836-38, hard shells; 1,838-52, slate; 1,852-1,900, slate and shells; 1,900-33, hard sand, slate, pebbles at 1,933; 1,933-2,007, lime; 2,007-47, slate and lime; 2,047-50, slate; 2,050-2,107, slate and lime; 2,107-90, slate; 2,190-2,240, slate and lime; 2,240, hard shell; 2,240-78, firm drilling; 2,278, sand drillings; 2,278-93, slate and lime; found one piece of calcite in one piece of slate at 2,293 feet.

WEST VIRGINIA

Several producers were completed in West Virginia, chiefly in Roane County. In Curtis district, K. M. Hunt and others completed a test on the T. W. Lattimer farm in the Salt sand at a depth of 1,610 feet, showing for 6 bbls. a day. The same operator completed a test on the T. J. Murray 30-acre farm on Mill Creek in this district in the Cow Run sand at a depth of 1,066 feet, making about 5 bbls. a day. On this creek in Curtis district, the same operator drilled the test on the T. J. Murray 4-acre farm, which had been a gas well in the Salt sand, deeper in that formation and it is now producing 8 bbls. a day.

In the same district and county and on the waters of Mill Creek, about three-quarters of a mile north of the test on the F. H. Bee, Jr., farm, McIntosh and Norman completed a test on their own farm in the Salt sand at a depth of 1,764 feet. It is producing 15 bbls. a day.

In Doddridge County, on Elk Lick of McElroy Creek in McClellan district, W. D. Gribble drilled No. 2 on the M. J. Smith farm 27 feet deeper in the Injun sand and it is producing 5 to 6 bbls. a day.

Gas Wells

In Boone County, Boone County Coal Co. completed a second test on its property in Washington district in the Berea sand at a depth of 3,093 feet. It is a gas well gauging 1,100,000 feet a day. The Big Lime extended from 2,367-2,553 feet; the Big Injun was at 2,553-2,612 feet; the Berea sand was at 3,063-93 feet. Gas was struck at 2,416-35 feet and again at 2,378 feet.

In Cabell County there were two gas wells completed with the logs yet unreported. In McComas district, J. S. Pridemore and others have a gas well on the H. S. and Bertha Pridemore farm which tests 308,000 feet a day. In the same district, R. H. Adkins and others have a gas well in No. 2 on the H. S. Fraley farm and it gauges about 2,000,000 feet a day.

In Ritchie County, Clem Morris completed a test on the M. G. Drake farm on Leatherbark Creek in Murphy district in the Injun sand at a depth of 2,036 feet. It gauges 500,000 feet a day and is 1,100 feet west of the Drake Heirs' No. 1. In Clay district, A. R. Kelley and others completed a test on the F. R. Ball farm at a total depth of 2,046 feet. About 250,000 feet of gas showed at 1,939-51 feet and about 2 bbls. of oil at 1,951-57 feet. In Grant district, Gillman & Co. drilled a second test on the Albert Grouser farm through the Big Injun sand to a depth of 1,961 feet and it was dry.

In Roane County, Kenny M. Hunt and others completed No. 3 on the Zora Blaker farm on Peniel Run in Curtis district in the Salt sand at a depth of 1,675 feet. It is a fair gas well gauging 1,500,000 feet a day.

(Continued on Page 71)

Increased Activity Being Reported in Central West Fields and in Kentucky

By GEORGE A. WHITNEY
Staff Correspondent, Central West Fields

FINDLAY, Ohio, May 27.—In the Lima Field, Simms Oil & Gas Co.'s No. 1 on the Margaret Beach farm, Lot 100, Blanchard Township, Hardin County, is a gas well at a depth of 1,415 feet. Bert Sheldon has a rig for No. 2 on the Ora A. Rush farm, Lot 31, same township.

In Wyandot County, Upper Sandusky Oil & Gas Co.'s No. 6 on the N. and H. Saltzman farm, Section 28, Crane Township, is dry at 1,355 feet. Wyanco Oil & Gas Co. is drilling No. 5 on the Godlieb Seiler farm, Section 34, same township. Murphy and others are drilling No. 3 on the R. & R. Criswell farm, Section 17, Tymochtee Township. In Salem Township, H. Bosse Brothers Co.'s No. 1 on the E. E. Kear farm was dry at 1,293 feet. R. C. Jones has a rig for No. 1 on the William Walter farm, Section 26, Ridge Township.

In Hancock County, Brown and others are drilling No. 1 on the J. E. Shoop farm, Section 26, Pleasant Township, and in Putnam County Brown and others are drilling on the W. E. Geirhart farm.

In Wood County, F. D. Korner and others abandoned Nos. 1 and 2 on the Korner heirs farm, Section 11, Montgomery Township. H. Kinzey abandoned Nos. 1, 2, 3, 4, 5, 6 and 7 John F. Gibson farm, Section 27, same township. Security Oil Corp. abandoned No. 4 C. M. Bierly farm, Section 3, same township, Nos. 8 and 9 on the Hitchcock & Eckert farm, Section 3, Nos. 13 and 14, D. L. Thomas farm, Section 33, in Freedom Township, and Nos. 1, 2, 4, 6 and 8 on the John L. Faulkaber farm, Section 35, same township.

In Sandusky County, Security Oil Corp. abandoned Nos. 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23 on the Henry Bruns farm, in Woodville Township, and D. J. Klingman abandoned Nos. 1 3, 4, 5 and 9 on the Louis Linke farm, same township. In Sandusky Township, Walters & Ervin abandoned Nos. 2, 3, 4 and 5 on the Sarah Roarick farm, Section 30, and Nos. 1, 3, 4, 5 and 6 on the Rebecca Fought farm, same section. O'Brien and others are drilling No. 1 on the W. A. Koleman farm, Section 15, Jackson Township.

Seneca County

In Seneca County, Sandusky Gas Co. is drilling on the George Doran farm, Section 3, Hopewell Township. R. B. McKinney abandoned No. 8 on the County Infirmary, Section 5, Eden Township, and No. 2 on the Henry Bell farm, Section 32, Clinton Township.

In Hancock County, Brown and others'

(Continued on Page 80)

Oil Industry in California Now in Strong Position; Continued Agreement Means Better Prices

By L. P. STOCKMAN
Staff Correspondent, California Fields

LOS ANGELES, Calif., May 27.—California crude oil producers and marketers of refined products are sitting on top of the world at the present time and if they will take advantage of existing conditions they will be in a position to greatly enhance stabilization of the oil industry in California and at the same time stimulate general economic conditions.

Fuel Oil Strong

If the refined oil structure is stabilized by a renewal of the existing marketing agreement which is concerned chiefly with the sale of gasoline, it seems logical to assume that crude oil prices will be increased a little later, or at least maintained at their present level until marketers get their bearings. The upper brackets containing light refining crude will probably not be increased as much as oil in the lower brackets as the differential existing between light and heavy grades of crude is too large under existing conditions. The assumption that heavy unrefinable grades of crude oil will be given a substantial boost, provided that general marketing conditions are stabilized, is predicated on the probability that fuel oil prices will continue to show an improvement. Better prices for gas oil, Diesel oil and other by-products will necessitate a readjustment in scheduled prices for light refining crude but this grade of crude can not be increased if the principal commodity, gasoline, is permitted to register violent periodic fluctuations.

The heavier grades of refined oils have provided a lot of sunshine for marketers in general and this will ultimately be reflected by better prices to producers of heavy crude oil. The improvement in this market has been especially marked since California marketers disposed of surplus stocks of fuel oil and refinery residuum on the East Coast this year. For many years fuel oil and refinery residuum have been a drug on the Pacific Coast but now this situation has changed and fuel oil is once again carrying part of refining and marketing costs.

Fuel oil has shown so much of an improvement, particularly during the past few months, that prices have registered a substantial increase. The disposal of surplus stocks in the domestic markets of the East Coast last year has made it inadvisable for any marketer to enter a bid for the entire amount of the U. S. Navy's Pacific Coast commitments of 6,000,000 bbls. of fuel oil for the balance of 1935. No single marketer could guarantee to deliver more than 2,000,000 bbls. and prices quoted were substantially higher than the prices that prevailed under the previous contract. The lowest bid was for 87.4 cents per barrel but this was only for 500,000 bbls. Hancock, Rio Grande and Sunset offered to supply 500,000 bbls. each at 92.5 cents. Standard, Richfield and Shell bid 95 cents, while Union Oil Co. offered 2,000,000 bbls. for 93.5 cents per barrel. General Petroleum bid on 750,000 bbls., which provided that prices during the first six months would be at the rate of 87.8 cents per barrel and for the next six months, 90.8 cents.

Playa Del Rey

There is a very definite indication that the period of flush production which has characterized development work in the Palisades section of the Playa Del Rey Field will not continue as long as anticipated. Gas pressure has already shown a substantial decline and that the period of flush production will be relatively short-lived is evidenced by the fact that the Dunlap Petroleum Co. has found it necessary to install a compressor on its No. 1 Palisades, a recent completion. Two more new wells, Lor-Mar Oil Co.'s No. 1 McAdams and the Ritelube Oil Co.'s No. 1 Del Rey, will require artificial stimulation as they do not have sufficient kick to result in a natural flow.

Up to the present, operators have been hugging the projected axis of the field with the result that locations available on higher structural contours are being passed up. It appears quite probable that development work will be extended southward in the direction of the ocean but no wells can be drilled between Delagany Street and the tideline. Drilling operations also tend to indicate that Manchester Avenue will closely approximate the eastern limits of production. In as much as the gas pressure will gradually slide off, new completions may register substantial initials from time to time during the next few months but smaller producing wells may soon become the rule rather than the exception.

Pressure Declining

Although the Playa Del Rey Field will produce a considerable amount of crude oil before the pumping stage is reached, this field will follow the same declining tendencies that have applied to other Los Angeles Basin fields. It appears quite probable that operators who completed wells in the eastern extension soon after the completion of the discovery well, will pay out but with the advent of each succeeding month the chances grow less. The Los Angeles City Council has limited drilling operations to one well to each acre but even with this restriction there is considerable doubt as to whether the total recovery of crude oil and natural gas will compensate for the risks taken and the capital invested.

There is ample acreage to justify the drilling of a number of new wells, especially out on the south flank of the structure but it remains to be seen whether these new projects will pay out. Many well informed and experienced operators are inclined to doubt the wisdom of undertaking too much work in this field under present conditions or at least until further data is available.

It has been a long time since promoters have had the opportunity of selling units and per cents to the general public but this practice has been going full blast since the expansion of drilling operations to the east. Interests in drilling wells range all the way from $1,000 to $1,500 for each 1 per cent of the net, after deducting landowner's royalty, depending upon the depth and location of the well. Elimination of the five-day open flow test has had a tendency to reduce the value of royalties in drilling wells because operators are no longer able to produce their wells to the maximum and thus recover a large part of the drilling expense during the initial test. It does not take higher mathematics to compute just how long it will require to return the original investment in a new well that is given an average allowable of approximately 300 bbls. per day with crude oil commanding about $1 per barrel.

Gasoline Pool

The Wilmington section of Los Angeles Harbor has been experiencing a back yard oil field during the past 10 days and operators have not yet decided where the light oil is coming from. It is quite probable, however, that one of the gasoline lines is leaking somewhere because the oil which is being pumped out by hand pumps averages around 58 degrees A.P.I. The oil is straw color, due probably to the fact that it has come in contact with some soluble substance, and lot owners have been pumping all the way from 5 to 25 bbls. per day from depths ranging from 20 to 35 feet. Operators having pipe lines traversing the area are unable to explain the deposit, as a careful check does not indicate any excessive leaks. It is quite probable that there has been a slow leak in one of the lines for several months and that this gasoline has been accumulating during the entire period.

The Los Angeles Fire Department clamped down the lid on these operators early this week and until the matter is adjudicated they will not be allowed to pump any more oil. Most of these shallow wells are being pumped by hand with the use of a common water pump. Tests indicate that the oil averages around 80 per cent gasoline and this is fairly conclusive proof that some line is leaking badly.

Montebello

Although the Universal Consolidated's No. 2 Nutt in the eastern end of the Montebello Field tends to indicate that this new area may prove of considerable importance from a production standpoint, this will not be conclusively determined until another well or two has been completed and operators are in a position to predicate the general trend of the structure. Commercial production has already been developed in the Montebello extension but operators have not yet determined the extent and scope of the structure. One can not explain away a commercial producing well out on the edge of any structure when tests located higher structurally are unable to find the sand from which the outpost is producing. This is an old story in California except in this case the acreage in the extreme eastern end of the field is so closely held that drilling operations have been reduced to a minimum and operators are therefore unable to proceed with extension work.

The Texas Co.'s No. 1 Whittier, located about one-half mile east of the Universal Consolidated's No. 2 Nutt, should reach the pay within 30 days and consequently the importance of this structure should be fairly well determined before the close of June. The Wilshire Oil Co. should reach the projected completion depth shortly thereafter so that this area should be proved up or disproved during the early summer months.

Analogy

Seal Beach presents a case almost analagous to conditions existing at Montebello because there is a very definite division between the older section of the Seal Beach Field and Alamitos Heights and yet Seal Beach-Alamitos have certain definite characteristics in common. The structural relationship between Rosecrans and Athens is not quite as pronounced but at the same time this field contains two very definite productive areas. In view of these conditions it is within the realms of possibility that Montebello may also have a secondary accumulation as is the case at Seal Beach and Rosecrans. There is no similarity between conditions existing at Playa Del Rey and these other areas because there is no apparent break between the older section of Playa Del Rey and the eastern extension now undergoing development.

The new area in the Palisades extension is simply the extreme end of the Playa Del Rey Field supplemented by the fact that the accumulation has been laid down under more favorable subsurface conditions. Contours, predicated on the top of the oil sand, indicate very decisively that the nose of the structure is plunging down at a normal rate in this area. This is evidenced by the fact that the top of the oil sand is logged structurally lower as wells progress to the

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	May 12		May 5			
	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Intercoastal-domestic:						
Fuel oil	.....	.....	.....	.....	.....	5,712,601
Diesel and gas oil	.....	.....	.....	.....	527,098	931,159
Gasoline	73,894	10,556	116,972	16,710	2,618,333	2,393,615
Kerosene	.....	.....	.....	.....	592,040	502,880
Other finished oil	.....	.....	.....	.....	.....	15,171
Foreign exports:						
Crude oil	295,904	42,272	191,524	27,361	3,962,161	2,802,000
Fuel oil	248,373	35,482	281,027	40,147	4,426,750	4,631,963
Diesel and gas oil	24,771	3,539	86,325	12,332	1,410,405	1,713,861
Gasoline	142,408	20,344	101,192	14,456	1,732,500	1,613,614
Kerosene	39,288	5,613	63,017	9,002	434,036	658,065
Other finished oil	.....	.....	.....	.....	.....	3,529
Other unfinished oil	.....	.....	2,956	422	56,161	127,271
Coastwise-domestic:						
Crude oil	148,059	21,151	183,400	26,200	2,223,941	3,926,183
Fuel oil	274,672	39,239	52,455	7,494	3,026,130	4,184,600
Diesel and gas oil	.....	.....	24,341	3,477	326,613	318,962
Gasoline	117,116	16,731	311,833	44,548	3,060,460	4,141,243
Kerosene	.....	.....	.....	.....	42,757	64,414

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Intercoastal-domestic:						
Fuel oil	.....	.....	.....	.....	.....	49,995
Diesel and gas oil	.....	.....	.....	.....	167,258	448,113
Gasoline	.....	.....	.....	.....	.....	72,625
Kerosene	.....	.....	.....	.....	149,715	197,499
Asphalt	.....	.....	.....	.....	71,325	.....
Lubricants	.....	.....	.....	.....	12,381	13,331
Foreign exports:						
Crude oil	.....	.....	282,153	40,308	832,282	666,462
Fuel oil	20,188	2,884	18,460	2,637	585,456	441,602
Diesel and gas oil	.....	.....	49,018	7,003	400,802	580,136
Gasoline	.....	.....	87,550	12,507	869,910	1,268,923
Kerosene	.....	.....	.....	.....	216,283	302,772
Lubricants	.....	.....	.....	.....	74,411	62,580
Other finished oil	.....	.....	.....	.....	.....	2,760
Other unfinished oil	.....	.....	.....	.....	.....	5,750
Coastwise-domestic:						
Fuel oil	298,302	42,615	294,566	42,081	2,680,059	1,402,611
Diesel and gas oil	9,060	1,294	10,161	1,452	98,883	87,029
Gasoline	129,726	18,532	165,595	23,656	1,577,681	1,492,862
Kerosene	.....	.....	.....	.....	18,109	44,690

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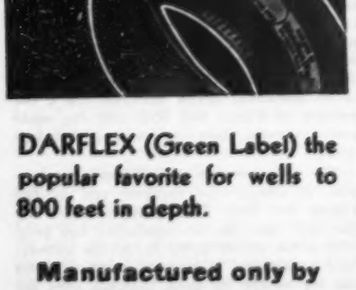

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east. Location of the apex of the structure in the Montebello extension is still conjectural and will remain so until several additional new wells are drilled. Up to the present, operators have been locating wells as close to the older sec-

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Macrate, A. M., No. 1 Athens, Los Angeles Co.	18- 3-13	6,200	pump water
Republic Pet., No. 1 Lawndale, Los Angeles Co.	18- 3-14	5,004	suspended
Associated Oil Co., No. 4 Inglewood Deep, Los Angeles Co.	7- 2-14	....	rigging up
Scientia Oil Co., No. 1 Inglewood Deep, Los Angeles Co.	7- 2-14	3,806	resume work
Standard Oil Co., No. 5 Inglewood Deep, Los Angeles Co.	17- 2-14	6,284	suspended
Standard Oil Co., No. 6 Inglewood Deep, Los Angeles Co.	17- 2-14	4,180	P.B. 4,060
Shell Oil Co., No. 3 Inglewood Deep, Los Angeles Co.	8- 2-14	....	bldg. rig
Ohio Oil Co., No. 17 Del Rey, Los Angeles Co.	28- 2-15	3,655	redrlg.
Bel-Mar Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	2,780	suspended
Harper & Williams, No. 1 Del Rey, Los Angeles Co.	27- 2-15	4,364	sd. sh. drlg.
Coast Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,500	sd. sh. drlg.
Dabney Pet. Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	....	bldg. rig
Ritelube Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	7,048	completing
Mathews Pet. Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	5,460	redrlg. 4,950
Birch Royer Oil Co., No. 1 Del Rey, Los Angeles Co.	34- 2-15	5,571	sd. sh. drlg.
Lor-Mar Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,874	P.B. 6,725
Joyce Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	4,153	sd. sh. drlg.
Union Oil Co., No. 10 Del Rey, Los Angeles Co.	27- 2-15	6,310	flow 1,539 b.d.
Union Oil Co., No. 11 Del Rey, Los Angeles Co.	27- 2-15	3,750	sd. sh. drlg.
Union Oil Co., No. 12 Del Rey, Los Angeles Co.	27- 2-15	3,750	sd. sh. drlg.
Big Ben Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,470	cmtd.
Doyle Pet. Co., No. 1 Manhattan, Los Angeles Co.	30- 2-14	6,935	schist
West American Oil Co., No. 1 Bandini, Los Angeles Co.	17- 2-12	....	rigging up
Western Gulf, No. 1 Bandini, Los Angeles Co.	16- 2-12	3,881	sd. sh. drlg.
Vanco Dev. Co., No. 1 Artesia, Los Angeles Co.	25- 3-12	3,673	sd. sh. drlg.
Monarch Oil Corp., No. 1 Topanga, Los Angeles Co.	5- 1-16	....	rig suspended
Texas Co., No. 1 Montebello, Los Angeles Co.	5- 2-11	2,960	sd. sh. drlg.
Woodward Oil Co., No. 1 Montebello, Los Angeles Co.	4- 2-11	....	rigged up
Wilshire Oil Co., No. 1 Montebello, Los Angeles Co.	5- 2-11	713	sd. sh. drlg.
Frontier Oil Co., No. 1 Pico, Los Angeles Co.	7- 2-11	3,600	sd. sh. drlg.
Pressell & Tull, No. 1 Puente Hills, Los Angeles Co.	30- 2-9	4,300	hd. sd. drlg.
Barstow Oil Co., No. 1 Saugus, Los Angeles Co.	35- 5-16	3,720	sd. sh. drlg.
International Dev. Co., No. 1 Saugus, Los Angeles Co.	34- 5-16	4,335	suspended
Piatt & Collins, No. 1 Costa Mesa, Orange Co.	14- 6-10	2,560	suspended
Wilshire Oil Co., No. 1 Newport, Orange Co.	29- 6-10	671	br. sh. drlg.
Bartholomae Oil Co., No. 2 East Coyote, Orange Co.	22- 3-10	3,717	pump 135 b.d.
Great American Pet. Co., No. 2 East Coyote, Orange Co.	22- 3-10	3,474	pump water
Viking Oil Co., No. 1 Richfield, Orange Co.	29- 3-9	1,451	sd. sh. drlg.
Great American Pet. Co., No. 4 Chino, San Bernardino Co.	7- 2-8	752	sd. sh. drlg.
Union Oil Co., No. 19 North Belridge, Kern Co.	36-27-20	....	rigging up
Union Oil Co., No. 20 North Belridge, Kern Co.	36-27-30	....	rigging up
Cimarron Oil Corp., No. 1 Delano, Kern Co.	14-25-27	2,198	will deepen
Standard Oil Co., No. 1 Delano, Kern Co.	1-25-23	2,455	gas—shut in
Standard Oil Co., No. 2 Delano, Kern Co.	1-25-23	3,256	to set pipe
Standard Oil Co., No. 3 Delano, Kern Co.	12-25-23	2,571	sd. sh. drlg.
Standard Oil Co., No. 4 Delano, Kern Co.	34-24-23	....	bldg. rig
Trico Oil & Gas Co., No. 1 Delano, Kern Co.	3-25-23	2,525	gas well
Trico Oil & Gas Co., No. 3 Delano, Kern Co.	36-24-22	4,335	P.B. 2,223
Trico Oil & Gas Co., No. 4 Delano, Kern Co.	3-25-23	2,530	sd. sh. drlg.
Baker, Cliff, No. 1 Poso Creek, Kern Co.	33-27-28	....	bldg. rig
Associated, No. 1 Kern Front, Kern Co.	23-28-27	2,217	pump 190 b.d.
Associated, No. 2 Kern Front, Kern Co.	4-28-27	....	rigging up
Kern River Oilfields, No. 3 Kern Front, Kern Co.	25-28-27	....	rigging up
Getty Oil Co., No. 9 Kern Front, Kern Co.	26-28-27	2,090	sd. sh. drlg.
Republic Petroleum, No. 1 Kern Front, Kern Co.	24-28-27	....	rigging up
Pongratz Oil Co., No. 1 McVan Area, Kern Co.	2-27-27	1,000	sd. sh. drlg.
Golden Bear Oil Co., No. 1 Kern Front, Kern Co.	32-27-27	4,900	gr. sd. drlg.
Stevens Pet. Co., No. 1 Kern Front, Kern Co.	13-27-27	1,818	sd. sh. drlg.
Barnsdall Oil Co., No. 4 Mountain View, Kern Co.	32-30-29	....	rigging up
Hancock Oil Co., No. 6 Mountain View, Kern Co.	14-30-28	5,181	redrlg. 4,700
Hancock Oil Co., No. 7 Mountain View, Kern Co.	14-30-28	....	rigged up
Shell Oil Co., No. 2 Mountain View, Kern Co.	32-30-29	....	rigging up
C. C. M. Oil Co., No. 1 Mountain View, Kern Co.	11-30-28	3,964	sd. sh. drlg.
Union Oil Co., No. 6 Mountain View, Kern Co.	9-30-28	7,771	sd. sh. drlg.
Union Oil Co., No. 7 Mountain View, Kern Co.	15-30-28	5,153	sd. sh. drlg.
Union Oil Co., No. 8 Mountain View, Kern Co.	22-30-28	1,250	sd. sh. drlg.
General Petroleum, No. 4 Mountain View, Kern Co.	14-30-28	5,373	sd. sh. drlg.
Yesta Pet. Co., No. 1 Mountain View, Kern Co.	19-30-29	3,984	sd. sh. drlg.
Mohawk Oil Co., No. 10 Mountain View, Kern Co.	30-30-29	4,531	sd. sh. drlg.
Mohawk Oil Co., No. 11 Mountain View, Kern Co.	30-30-29	....	rigging up
Hogan Pet., No. 7 Mountain View, Kern Co.	32-30-29	5,554	O. S. drlg.
Sovereign Oil Co., No. 4 Mountain View, Kern Co.	30-30-29	3,866	sd. sh. drlg.
Jergins Trust, No. 5 Mountain View, Kern Co.	24-30-28	5,761	completing
Standard Oil Co., No. 7 Mountain View, Kern Co.	13-30-28	5,000	fish. D.C.&B.
Standard Oil Co., No. 8 Mountain View, Kern Co.	23-30-28	....	rigging up
Ohio Oil Co., No. 1 Mountain View, Kern Co.	33-30-29	5,990	suspended
Ohio Oil Co., No. 2 Mountain View, Kern Co.	33-30-29	3,531	sd. sh. drlg.
Mountain View Oil Co., No. 1 Mountain View, Kern Co.	25-30-28	5,650	fish. D. P.
Jergins Trust, No. 6 Edison, Kern Co.	24-30-29	1,727	P.B. 1,373
Jergins Trust, No. 7 Edison, Kern Co.	13-30-29	....	rigging up
Jergins Trust, No. 8 Edison, Kern Co.	24-30-29	....	rigging up
Shell Oil Co., No. 5 Edison, Kern Co.	21-30-29	4,415	pump 150 b.d.
Shell Oil Co., No. 6 Edison, Kern Co.	14-30-29	2,979	pump test
Shell Oil Co., No. 7 Edison, Kern Co.	14-30-29	2,051	cmtd. 1,923
Major Oil Co., No. 1 Edison, Kern Co.	18-30-29	136	suspended
Chaulk Oil Co., No. 1 Edison, Kern Co.	5-30-29	2,855	test W.S.O.
Nelco Oil Co., No. 1 Edison, Kern Co.	5-30-29	3,000	sd. sh. drlg.
North American, No. 3 Edison, Kern Co.	14-30-29	....	rig suspended
General Pet., No. 5 Edison, Kern Co.	15-30-29	2,950	sd. sh. drlg.
Appling, C. E., No. 1 Edison, Kern Co.	4-30-29	3,016	test W.S.O.
Goldman, Frank, No. 1 Edison, Kern Co.	30-29-30	963	hd. sd. drlg.
Woodward Oil Co., No. 2 Edison, Kern Co.	31-29-30	497	rig to pump
Woodward Oil Co., No. 3 Edison, Kern Co.	36-29-29	619	recmtd.
Woodward Oil Co., No. 4 Edison, Kern Co.	36-29-29	395	sd. sh. drlg.
General Pet., No. 1 Arvin, Kern Co.	1-32-29	4,130	fish D.P.
Tejon Ridge Oil Co., No. 1 Comanche, Kern Co.	23-32-29	1,797	suspended
Hall-Baker Co., No. 1 Arvin, Kern Co.	16-31-30	1,250	pump water
Hall-Baker Co., No. 2 Arvin, Kern Co.	17-31-30	720	sd. sh. drlg.
Hutcheson & Osborne, No. 1 Arvin, Kern Co.	32-30-30	....	rig suspended
Sea Cliff Oil Co., No. 1 Greenfield, Kern Co.	7-31-28	6,398	sd. sh. drlg.
Fullerton Oil Co., No. 1 Semi-Tropic, Kern Co.	1-27-22	1,751	sd. sh. drlg.
Fullerton Oil Co., No. 2 Semi-Tropic, Kern Co.	14-27-23	985	sd. sh. drlg.
Fullerton Oil Co., No. 3 Semi-Tropic, Kern Co.	9-27-23	....	bldg. rig
Standard Oil Co., No. 1 Semi-Tropic, Kern Co.	8-27-23	3,200	producing gas
Standard Oil Co., No. 2 Semi-Tropic, Kern Co.	5-27-23	2,752	sd. sh. drlg.
Standard Oil Co., No. 3 Semi-Tropic, Kern Co.	7-27-23	....	rig suspended
Standard Oil Co., No. 4 Semi-Tropic, Kern Co.	9-27-23	....	bldg. rig
Milham Expl. Co., No. 1 Semi-Tropic, Kern Co.	15-27-23	....	bldg. rig
Shell Oil Co., No. 1 Buena Vista, Kern Co.	9-32-25	6,229	sd. sh. drlg.
Bender, E. L., No. 1 Temblor, Kern Co.	2-29-30	350	sd. sh. drlg.
Reserve Oil & Gas Co., No. 1 Tejon, Kern Co.	2-10-19	3,703	redrlg. 2,709
Silver Gate Oil Co., No. 1 Tejon, Kern Co.	7-10-19	....	rigging up
Taft Well Drlg. Co., No. 1 Kreyenhagen, Fresno Co.	33-22-16	1,741	sd. sh. drlg.
Standard Oil Co., No. 1 Coalinga, Fresno Co.	13-20-14	700	sd. sh. drlg.
Wellington Oil Co., No. 1 Coalinga, Fresno Co.	14-20-14	1,170	sd. sh. drlg.
Milham Expl. Co., No. 1 Ora Loma, Fresno Co.	12-12-11	5,010	gr. sd. drlg.
Russ Oil Synd., No. 1 Ora Loma, Fresno Co.	28-12-11	5,079	suspended
Union Oil Co., No. 1 Lillis-Kettleman, Fresno Co.	24-21-16	10,944	redrlg. 7,980
K. N. D. A., No. 56 Kettleman, Kings Co.	4-22-18	10,262	gr. sd. drlg.
Standard, No. 2 Kettleman Middle, Kings Co.	29-23-19	6,303	sd. sh. drlg.
Continental Oil Co., No. 1 Kettleman-South, Kern Co.	7-25-20	6,000	sd. sh. drlg.
Farrel Pet., Well No. 1, San Luis Obispo Co.	18-31-12	1,610	cmtd.
Willett Oil Co., No. 1 Cholame, San Luis Obispo Co.	10-25-15	2,627	suspended
Kings River Oil Pool, Well No. 1, Tulare Co.	29-16-23	3,265	hd. sd. drlg.
Schuster, C. R., No. 1 Tulare, Tulare Co.	27-22-23	....	rig suspended
Commonwealth Consd. Gas, No. 1 Tulare Lake, Kings Co.	21-22-20	2,490	gas well
Commonwealth Consd. Gas, No. 2 Tulare Lake, Kings Co.	21-22-20	401	suspended
Amerada Pet., No. 1 F. L. D., San Joaquin Co.	15- 2-5	4,481	hd. sh. drlg.
Pure Oil Co., No. 1 Chowchilla, Madera Co.	7-10-14	8,402	gas well—idle
Northern Counties Pet., No. 1 Tehama, Tehama Co.	25-24-3	4,152	hd. sh. drlg.
Texas Co., No. 1 Petrolia, Humboldt Co.	1- 3-2	5,950	sd. sh. drlg.
Shell Oil Co., No. 1 Branch, Monterey Co.	24-24-16	1,300	sd. sh. drlg.

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tions of the Montebello Field as possible with the result that the area so far tested out is very limited in scope. It is quite possible that the Wilshire Oil Co. or the Texas Co. will pick up some definite markers within the next few weeks and thus afford a means of projecting the trend of the structure. Montebello has been thrust in the background by aggressive development at Playa Del Rey but it might be well to remember that Montebello may present possibilities far greater than the eastern end of the Playa Del Rey Field.

Long Beach

The Long Beach Field of Los Angeles Basin will celebrate its fourteenth birthday next month, as the Shell completed No. 1 Alamitos, the discovery well, in June, 1921. Up to the close of April, 1935, Long Beach has produced 533,009,689 bbls. of crude oil and is still going strong. Current production averages 68,000 bbls. per day despite the fact that there are a number of wells shut in because of curtailment. At the present time, operators are drilling 44 new wells in addition to the numerous redrilling and clean-out jobs.

Out in the vicinity of Twenty-first and Cherry Streets, along the south flank of the field, there are about 10 new wells either under way or getting ready to spud in. These new rigs have all been erected within the past few weeks. Another group of new wells is also being started in the vicinity of Twenty-fifth Street and Orange, and some of them have already been spudded in. A few blocks down the street, at Twenty-fifth Street and Willow, one will find another group of new projects either just getting under way or already making hole. For the greater part, most of these new rigs are of wood construction in contrast with other work in other parts of the field. It is interesting to note in this connection that more than half of the derricks in the Long Beach Field are of wood construction.

The Shell Oil finished an excellent well in the Long Beach Field this week when No. 10 Cherry Hill was returned to production flowing 730 bbls. of clean 29.5 gravity oil per day after the hole had been redrilled and deepened from 4,095 feet to 5,275 feet and the hole finished with a 5¾-inch liner carrying 483 feet of perforated and 4,497 feet of 2½-inch tubing. The Coast Oil Co.'s No. 1 Long Beach was good for 398 bbls. of 26.5 gravity oil upon completion at 4,120 feet after the hole had been finished with a 4¾-inch liner, including 180 feet of perforated, but the output was still cutting about 6 per cent late in the week. The N. Y. K. Oil Co.'s No. 3 Henshaw and Crail Brothers, Inc.'s No. 1 M. C. M. both proved rather wet upon being given production tests during the early part of the week. The former was brought in pumping 437 bbls. of 26.5 gravity oil cutting 24.5 per cent per day from 4,461 feet, while the latter showed an initial daily production of 471 bbls. which showed a cut of 15 per cent.

Dominguez

The Dominguez Field of Los Angeles Basin has taken on the aspect of a real oil field following the resumption of drilling operations last year after work has been retarded for several years because of conservation and curtailment work. A casual visit to this field would lead one to believe that operators were engaged in competitive and intensive drilling due to the proximity of rigs. Last year, operators began drilling twin wells located about 50 to 100 feet apart but this year they are in trios. As a result of this procedure, there are a number of rigs whose bases are not more than 10 feet apart. In order to correct the erroneous impression that might be gained from a superficial visit it might not be amiss to call attention to the fact that the first well of each trio of producing wells is producing from the upper zone while the other two are producing from successive productive zones below the upper Callender.

By centralizing wells in this manner, operators are able to reduce drilling operations especially in as much as a careful check is kept as to the deviations of each hole. Although this procedure is by no means original, the Shell Oil Co. started this practice in the Long Beach Field several years ago when it was found advantageous to centralize locations because in this way it could produce one well from the upper zone and another from the lower zone from the same approximate location. This method has the advantage of giving each well

(Continued on Page 71)

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Shell Oil Co., No. 4 Capitan, Santa Barbara Co.	5- 4-30	3,043	C. P. 2,941
General Petroleum, No. 14 Capitan, Santa Barbara Co.	32- 5-30	2,494	O.S. cmtd.
General Petroleum, No. 15 Capitan, Santa Barbara Co.	32- 5-30	....	ldg. rig
Freeman, M. J., No. 1 Purisima, Santa Barbara Co.	11- 7-32	753	suspended
Casmite Co., No. 1 Casmalia, Santa Barbara Co.	13- 9-35	1,745	water witch
Scully & Snyder, No. 1 Naples, Santa Barbara Co.	7- 4-29	6,447	suspended
Barnsdall-Rio Grande, No. 10-88 Elwood, S. Barbara Co.	tideland	3,616	run liner
Barnsdall-Rio Grande, No. 2 Elwood, Santa Barbara Co.	15- 4-29	5,700	sd. sh. drlg.
Bankline Oil Co., No. 8 Elwood, Santa Barbara Co.	tideland	3,156	will deepen
Signal Oil & Gas Co., No. 4 Elwood, Santa Barbara Co.	tideland	1,481	sd. sh. drlg.
Caroline Spalding, No. 10 Elwood, Santa Barbara Co.	tideland	2,594	sd. sh. drlg.
West Elwood Oil Co., No. 1 Goleta, Santa Barbara Co.	9- 4-28	3,715	cmtd. 3,600
Las Posas Pet., No. 1 Las Posas, Ventura Co.	22- 3-20	8,116	fishing
Calco Pet. Co., No. 1 Las Posas, Ventura Co.	17- 3-20	551	sd. sh. drlg.
Union Oil Co., No. 1 Bardsdale, Ventura Co.	13- 3-20	1,841	sd. sh. drlg.
Bankline Oil Co., No. 1 Sespe, Ventura Co.	36- 5-20	....	bldg. road
Goldray Oil Co., No. 1 Rincon, Ventura Co.	20- 4-24	....	rig suspended
Oil Ridge Oil Co., No. 1 Ventura, Ventura Co.	1- 4-19	1,602	to deepen
El Rancho Oil Co., No. 1 South Mountain, Ventura Co.	9- 3-19	1,131	sd. sh drlg.
Texas Co., No. 128 South Mountain, Ventura Co.	4- 3-19	6,738	sd. sh. drlg.
Paloma Oil Co., No. 1 Susana, Ventura Co.	12- 2-18	1,049	hd. sd. drlg.
Bolsa Chica Oil Co., No. 2 Piru, Ventura Co.	4- 4-18	2,665	cmtd. 2,600
Continental Oil Co., No. 1 Ojai, Ventura Co.	12- 4-23	1,544	pump 40 b.d.
High Mesa Oil Co., No. 1 Ojai, Ventura Co.	16- 4-22	570	sd. sh. drlg.
Prop. Service Corp., No. 1 Lloyd, Ventura Co.	24- 3-23	7,502	gr. sd. drlg.
Continental Oil Co., No. 4 San Miguelito, Ventura Co.	23- 3-24	4,243	sd. sh. drlg.
Standard Oil Co., No. 1 Lost Hills, Kern Co.	2-26-20	3,984	br. sh. drlg.
Continental Oil Co., No. 1 McDonald, Kern Co.	7-28-20	4,250	sd. sh. drlg.
General Pet. Co., No. 1 South Belridge, Kern Co.	30-28-21	11,377	suspended
Standard Oil Co., No. 1-A North Belridge, Kern Co.	36-27-20	3,618	P.B. 8,539
Standard Oil Co., No. 2 North Belridge, Kern Co.	36-27-20	7,393	hd. sh. drlg.
Belridge Oil Co., No. 32-35 North Belridge, Kern Co.	35-27-20	5,284	O.S. drlg.
Belridge Oil Co., No. 28-35 North Belridge, Kern Co.	35-27-20	762	cmtd.

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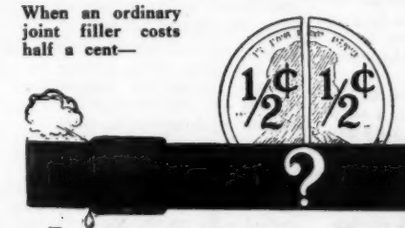

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Completion of 5,000 Barrel Producer Stimulates Drilling in Crystal Township Field, Michigan

By PAUL A. ELLIOTT
Staff Correspondent, Michigan Fields

MUSKEGON, Mich., May 27.—New drilling activity in the Crystal Township, Montcalm area, was stimulated to greater heights last week by completion of the Eastern Gulf Oil Co.'s No. 1 George W. Barger, SW SW SE Section 2-10n-5w, direct north offset to J. W. Leonard, Jr., and others' No. 1 Otto Durbin, the discovery, as a second Dundee producer with an initial flow of about 5,000 bbls.

Dundee limestone was topped at 3,178 feet and oil at 3,190 feet, or 12 feet, the gas pressure encountered with the oil hurling the black spray above the 84-foot standard derrick for a few minutes until it was shut in. Completion has been delayed a day because of strong north winds blowing toward the discovery well still producing more than 4,000 bbls. under 345 pounds back pressure during a 24-hour test taken last week, two months after it was brought in. Gas flow also was gauged at 2,750,000 feet daily.

The new Barger well, considered an almost certain shot, flowed 50 bbls. in 15 minutes and was estimated at more than 200 bbls. an hour. The discovery flowed 160 bbls. an hour during a 24-hour test with B.S.&W. averaging one-half of 1 per cent, the highest content at any time during the test being three-fourths of 1 per cent.

The Barger well is located on a 20-acre lease formerly part of a 40-acre farm which originally included the Durbin 20 acres across the road sold to Mr. Barger's second cousin several years ago for $850. Mr. Barger paid $1,700 for the 40 about 22 years ago but sold half of it to Otto Durbin when he felt he no longer could pay the taxes on the entire tract.

Prior to casing at 3,178 feet in the top of the Dundee, the Barger struck a show of gas at 1,196 feet in the Michigan Stray sands and a light show of oil in the upper Traverse at 2,721 feet. Drilling operations were started May 17 at an elevation about 2 feet higher than the discovery well. Dundee pay was encountered in the Durbin well at 3,194 feet and drilling suspended at 3,198 feet.

Other Tests

Two other tests near the two producers also topped the Dundee last week and were running 5-inch casing preparatory to completion early this week. The limestone was topped at 3,173 feet in J. W. Leonard, Jr., Trustee's No. 1 C. R. West estate, NE NE NW Section 11, Crystal Township, while the Daily Crude Oil Co.'s No. 1 Tow, SE NW SW Section 2, same township, also was shut down to case. The West well encountered a show of oil and gas in the upper Traverse at 2,735 feet.

Two other tests, one about a quarter of a mile east and the other a like distance west of the Barger and Durbin wells, but both on the north side of "Wall Street," formerly just a country road, also were nearing the Dundee drilling at about 3,000 feet. They were Taggart Brothers, Inc.'s No. 1 Fred Smith, SW SW SW Section 1, Crystal, the rotary test recently changed over to standard tools, and McClanahan Oil Co.'s No. 1 Geneva Flint, NW NW NW Section 11, same township, both of which may be completed this week giving some indication of the trend of the new central Michigan field.

About 30 other tests in a list increased to 85 permits in five townships Crystal and Ferris of Montcalm County, New Haven, Newark and Sumner of Gratiot County, are drilling.

Crystal Oil Co.'s No. 1 Ben Shaver, NW NW NE Section 4-10n-4w, New Haven Township, caused somewhat of a flurry when it struck a flow of Michigan Stray gas last week at 987 feet, first reported making 28,000,000 to as high as 80,000,000 feet a day. Later it was more conservatively estimated good for about 7,000,000 feet a day although still considered an important indicator as it is located about 4 miles east of the Crystal discovery. Contractors are the Melvin Drilling Co.

Although the operators, a Lansing syndicate, were pleased with the flow of gas, it was cased off and will be drilled on to the oil sands before attempting to produce the gas. The Michigan sand was topped at 986 feet. It had a light gas show at 830 feet. It was cemented after hurling a 120-foot column of water high over the derrick through an 8-inch casing for several days, making it impossible to get an accurate gauge on the gas.

Varying quantities of gas previously have been picked up in several oil tests in the Crystal area, including projects in Crystal, New Haven and Sumner Townships. Two more shows were added to the record last week in the McClanahan Oil Co.'s No. 1 Arthur Akin, SE SE NE Section 17, New Haven Township, and the Burnstein Oil & Gas Corp.'s No. 1 Joseph J. Keel, SW SE SE Section 35-11n-5w, Ferris Township, Montcalm County, which made from 500,000 to 3,000,000 estimated flows in the Michigan Stray sands before casing to drill on to the Dundee oil pay.

As in most fields, the major operators are confining their drilling to close-in acreage, while the independents have stepped out from 3 to 5 miles from production with extension tests.

Gratiot County

Spurred on by the Crystal successes, the Bila Oil Corp., of Chesaning, have erected a rig for the No. 1 Thomas Ryan, SW SW SE Section 32-10n-1w, Hamilton Township, Gratiot County, a mile north of Ashley and in the Elba gas producing area about 22 miles southeast of Crystal. Although several small gas wells have been completed in this section and are now serving Ashley, few have been carried to the Dundee as is the intention in the Ryan.

It is predicted more than 100 rigs will be running in and about the Crystal area within 60 days if close-in tests now drilling are successful.

The Crystal discovery already has resulted in the establishment of a new permit record during April and May even greater than the rate of new locations made two years ago during the Porter Pool rush in Midland County, still the State's greaterst producing area.

Crystal Locations

Five new locations, in addition to the Bila-Ryan wildcat in Hamilton-Gratiot already mentioned, were placed under permit last week, all in Crystal Township.

Stork Oil Co., of Saginaw, took out three state conservation permits for the following tests: No. 2 G. Dickenson, SW SW SE Section 3-10n-5w; No. 3 Dickenson, NW SW SE, same section, and the No. 4 Dickenson, NE SW SE, same section.

The Daily Crude Oil Co., of Newark, Ohio, received a permit for the No. 1-A J. Tow, SE SE SE Section 3, and No. 1 George E. Manning, NW SE NW Section 1, same township.

Porter Pool

The Porter Pool, however, still holds the weekly record contributing largely to a permit last of 30 during the week ended August 16, 1933. Twenty-five permits also were issued during the previous week ending August 9, 1933, a record equaled by the Crystal rush of April 24, 1935. The week ended May 15, 1934, was the fourth of a month's period during which the weekly list was 20 or more. Twenty-one permits were issued during the week ended January 3, 1933, when a large number were taken out in Ogemaw County where a federal limitation of wells was threatened.

Michigan Runs

Despite the steady potential of the discovery Crystal well, actual production dropped 558 bbls. daily during the week ended May 18 with a slightly greater decline of 783 bbls. a day in the aggregate production of all fields bringing the actual flow nearer to the federal allowable than at any time in many weeks.

A slight reduction was experienced in the Porter-Yost Pools, while the old Mount Pleasant Field, or the Chippewa-Greendale Townships Pool showed an increase of 143 bbls. a day. Both Ogemaw and Muskegon showed an increase while Oceana was down 33 per cent.

It was the second successive week during which production was slightly below 40,000 bbls. a day, a record established during three previous consecutive weeks.

Completions

Eight tests produced oil or gas in commercial quantities last week in five fields in three central Michigan counties, one of them opening a possible new gas field in Mecosta County.

Midland County

Largest of the three new Porter Township, Midland County, oil wells was the McClanahan Oil Co. and C. L. Maguire, Inc.'s No. 2 C. Hoyt, SW SW SE Section 18-13n-1w, which flowed 330 bbls. during the first 24 hours and settled down to 275 bbls. a day after topping the Dundee at 3,396 feet and drilling to 3,423 feet. It was not treated with acid.

Pure Oil Co.'s No. 5-A Iva E. Bond, NE SE SW Section 7, same township, was gauged at 50 bbls. a day after acid treatment for oil which rose 1,400 feet in the hole at a total depth of 3,441 feet.

McClanahan Oil Co.'s No. 2 Howard Northrup, in Section 20, Porter, previously drilled into the Dundee pay sands, flowed 77½ bbls. in 24 hours after topping the limestone at 3,422 feet and drilling 10 feet in.

Pure's No. 4-A Novak, NW SE SE Section 7-14n-2w, Greendale Township, had an estimated flow of 125 bbls. a day after acid treatment. It was completed at 3,553 feet in record drilling time of 26 days.

Isabella County

Two nearby wells in Broomfield Township, Isabella County, were completed with a combined flow of about 3,250,000 feet of natural gas daily from the Michigan Stray sands.

The larger was Guy M. Obenauer's No. 1 Lawrence Lovell, C SW NW Section 14-14n-6w, which initialed 2,250,000 feet as the best in the field for several weeks at a total depth of 1,341 feet.

Wing Brothers' No. 1 Louis Yost, C NW SW, same section, gauged 1,040,000 feet at 1,365 feet. Two others in the area, W. J. Bernier's No. 1 Nicholson, also Section 14, and the same operator's No. 1 Gatehouse, Section 35, Sherman Township, were expected to be completed soon.

W. Hunter Atha's No. 1 William Haley, C NE SW Section 31-16n-4w, Vernon Township, struck a flow of about 600,000 feet a day in the Michigan Stray sand at 1,501 feet, 1 foot in the shallow formation. Although comparatively small, other gas wells in the area make it profitable for production.

Mecosta County

A wildcat which was heralded as the discovery well of a new Mecosta County gas pool was the Jasmid Oil Corp.'s No. 1 Coopersville State Bank, C S half Section 22-13n-10w, Aetna Township, estimated good for 1,000,000 feet a day in the Michigan Stray sands at a total depth of about 1,175 feet.

Two other important shows also were encountered in Sheridan and Mecosta Township wildcats in the same county. The Sherritt Oil & Gas Co. of Grand Rapids struck a flow of about 500,000 feet a day in the No. 1 Scheibe, C NW SE Section 13-15n-7w, Sheridan Township. It was to be tubed and shot.

The Jetter Oil Co. reported a show in the Traverse at 2,903 feet in its No. 1 Daniel Pursley, NE SW SW Section 19-14n-10w, Mecosta Township, but continued drilling to test the Dundee. The show was encountered between the expected levels of the upper and lower Traverse, the former topped at 2,742 feet. At 2,765 feet a flow estimated at 200,000 feet a day by C. B. Jetter, formerly a Muskegon operator, was encountered before the oil show at 2,903 feet.

Beaverton Township

The successful deepening of M. F. Whitehill's No. 1 Omer Kintner well, the discovery Dundee producer in Beaverton Township, Gladwin County, increasing its flow from 10 to 122 bbls. in 24 hours, has led to new hopes for a paying pool in this section about 20 miles north of the Porter area.

Sun Oil Co., after drilling into water at 3,998 feet in the No. 1 Mary A. Hines, C NW NE Section 31-17n-1w, Tobacco Township, plugged back 20 feet and was testing on the pump. Dundee was topped at 3,796 feet with a show of oil 90 feet in and an increased show 157 feet in.

J. V. Wicklund's No. 1 Carrie Neal, SE NE SE Section 13-16n-2w, Warren Township, Midland County, just over the line, has been plugged and abandoned as a "duster."

Ogemaw County

Four tests were still completing in West Branch and Ogemaw Townships, Ogemaw County, after drilling into the Dundee oil pay sands with prospects of making from 60 to 120 bbls. a day.

They included: Webber Oil Co.'s No. 1 Horsell, Section 28-22n-2e, West Branch; Gordon Oil Co.'s No. 1 Lally Brothers, Section 19, same township; Muskegon Oil Corp.'s No. 1 Arthur Fisk, Section 29, same township, and J. W. Leonard, Jr., and others' No. 1 Joseph and Katherine Heintz, Section 24-22n-1e, Ogemaw Township.

Wildcats

A show of oil recently was reported struck in Dayton H. O'Donnell's No. 1 F. S. and Grace Hardy, NW NW NW

(Continued on Page 71)

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Second New Monument Producer Completed in Lea County, as Good as First Discovery

By TOLBERT R. INGRAM
Staff Correspondent, Rocky Mountain Area

DENVER, Colo., May 27. — Amerada Petroleum Corp. is completing its second producer in the new Monument Pool in Lea County, New Mexico, its No. 1-F State, C SW SW Section 36-19-36, a north offset to the discovery well. It looks as if it will be as good if not a larger well than the discovery, its No. 1-D State, C NW NW Section 1-20-36, which made 1,801 bbls. in 12 hours from the pay at 3,750-3,946 feet after being trated with 2,000 gallons of acid, when completed last March. The new well cut the pay at 3,798-3,902 feet and flowed 595 bbls. in four and one-half hours through the 2½-inch tubing with 1,500,000 feet of gas. It is still testing and is not yet listed as a completion. In a drill stem test at 3,694-3,903 feet it showed 500 feet of mud and oil in half an hour. Another test at 3,787-3,903 feet showed 510 feet of gas, oil and mud in 15 minutes.

Shell Petroleum Corp.'s No. 1-E State, C SE SE Section 35-19-36, a west offset to Amerada's No. 1-F State, began spudding May 12 and set the 12½-inch on bottom at 178 feet with 150 sacks. Superior Oil Co.'s No. 1 State, C NE NE Section 2-20-36, a west offset to the discovery and a south offset to the Shell drilling well, has rig up. The Texas Co.'s No. 1 Saunders, C SE SW Section 18-19-37, 3 miles to the north and a little east of the discovery, began spudding May 11, cemented the 13⅝-inch on bottom at 184 feet, in the red beds, with 175 sacks, and is waiting.

Eunice Area

One completion and two new locations were reported in the Eunice Pool.

Continental Oil Co.'s No. 18-A-2 Meyers, C NW SE Section 18-21-36, flowed 50 bbls. an hour through the drill stem with 15,000,000 feet of gas at 3,919 feet, total depth, from the pay at 3,865-3,919 feet. It was not tested through the casing. Through the 2½-inch tubing at 3,919 feet it flowed 20 bbls. an hour on a three-fourths-inch choke. The elevation is 3,642 feet. It is an outside well on the west side of the field and proves up a 40-acre unit to the north of the nearest producer.

One of the new locations is Atlantic Oil Producing Co.'s No. 1-G State, C SE SW Section 5-21-36, in the northern part of the pool and a west offset to its No. 1-C State, a recent completion. The other location is the Continental Oil Co.'s No. 9-B-4 Meyers, C NE NW Section 9-21-36, an outside well at the northeastern end of the developed area.

The Amerada Petroleum Corp.'s No. 1 Houston, C SE NE Section 7-21-36, cemented the 9⅝-inch at 2,685 feet with 500 sacks and is drilling at 2,806 feet in anhydrite. Atlantic Oil Producing Co.'s No. 1-E State, C NE SW Section 5-21-36, is drilling at 3,476 feet in lime and anhydrite and had a gas show at 3,210 feet, and oil shows at 3,425-45 and 3,465-70 feet.

Continental Oil Co.'s No. 9-B-3 Meyers, C SE NW Section 9-21-36, is drilling at 3,250 feet in lime, and its No. 20-C-5 State, C SW SW Section 20-21-36, cemented the 7⅝-inch at 1,775 feet with 400 sacks and is drilling at 2,380 feet in salt and anhydrite. Same company's No. 20-A-2 Lockhart, C NE NE Section 30-21-36, is drilling at 2,910 feet in anhydrite and salt. Its No. 20-C-4 State, C SE SW Section 20-21-36, is preparing to test at 3,890 feet, total depth. It cemented the 5½-inch at 3,860 feet with 300 sacks. A drill stem test at 3,830-75 feet showed 3,000,000 feet of gas.

Empire Gas & Fuel Co.'s No. 1-C State, NW cor. SW Section 16-21-36, is rigging up rotary.

Humble Oil & Refining Co.'s No. 3-B State, C NW SE Section 29-21-36, is drilling at 3,655 feet in lime, and its No. 4-B State, C NW NE Section 29-21-36, has rig up.

Ohio Oil Co.'s No. 3 State-McDonald, C NE SW Section 16-22-36, had a gas show at 3,292 feet and is drilling at 3,462 feet in lime.

Repollo Oil Co.'s No. 2 Adkins, SW cor. NE Section 9-21-36, is drilling at 2,962 feet in lime, and the Rowan Drilling Co.'s No. 1 Elliott had a show of oil and gas at 3,630-40 feet and is drilling at 3,729 feet in lime.

Shell Petroleum Corp.'s No. 1-A State, C SE NE Section 12-21-35, is cleaning out at 3,903 feet. It swabbed down in five hours and made 30 bbls. It then stood for 15 minutes and swabbed five bbls. It is still testing. Skelly Oil Co.'s No. 3-B State, C NE NW Section 16-21-36, began spudding May 12 and is cleaning at 825 feet in red beds.

Cooper Area

One new location was reported in the Cooper Pool in Continental Oil Co.'s No. 27-A-1 Gates, C SE SE Section 27-24-36. There were no completions.

The Amerada Petroleum Corp.'s No. 2 Isbell, C NE NE Section 15-24-36, began spudding May 11, set the 12½-inch at 249 feet with 135 sacks and is drilling at 255 feet in red beds.

Continental Oil Co.'s No. 23-A-2 Gates, C NW NW Section 23-24-36, has rig up, and its No. 26-A-1 Gates, C SW SW Section 26-24-36, is drilling at 3,037 feet in lime. Amos G. Carter and others' No. 1 Mattix, C SE NW Section 3-24-37, is drilling at 3,050 feet in lime.

Empire Gas & Fuel Co.'s No. 4 Everett, C SW SW Section 35-24-36, a location released two months ago, began spudding May 4, set the 12½-inch at 150 feet with 100 sacks, and is drilling at 498 feet in red beds.

General Crude Oil Co.'s No. 1 Woolworth, C NW SE Section 26-24-36, is a near completion at 3,509 feet, total depth. A drill stem test at 3,447-3,509 feet showed 500 feet of fluid in 15 minutes, 50 per cent oil. The 7-inch was then run to 3,447 feet and cemented with 400 sacks.

Humble Oil & Refining Co.'s No. 1 Coats, C NW NE Section 10-24-36, an important test 1½ miles north of production, which succeeded in killing the gas at 3,355 feet two weeks ago after going wild since last fall, is coring at 3,431 feet in lime and had an oil show at 3,420 feet.

Simms Oil Co.'s No. 1 Woolworth, C SE NE Section 35-24-36, is drilling by at 3,190 feet. Old total depth is 3,406 feet, where it had a blowout showing for 80,000,000 feet of gas last January.

The Texas Co.'s No. 2-B Ogg, C SE NE Section 34-24-36, is still testing at 3,501 feet, and its No. 3-B Ogg, C NE NE Section 34-24-36, plugged back from 3,073 feet to 2,400 feet to straighten hole.

Jal Area

One new location in the southern part of the Jal Field where little drilling has taken place in recent years was released in Gypsy Oil Co.'s No. 1-A Vinson Ramsey, C SE SE Section 12-26-36. It is building road and rig. It is a north offset to Stanolind Oil & Gas Co.'s No. 13 Farnsworth and a west offset to the same company's No. 29-B Farnsworth, two gas wells completed several years ago. There were no completions.

The Amerada Petroleum Corp.'s No. 1 Dyer, C SW NE Section 31-25-37, is drilling at 1,517 feet in anhydrite and potash.

Byrd-Frost, Inc.'s No. 1-A Wells, SE cor. NW Section 12-25-36, is reaming to bottom at 3,280 feet in sandy lime. A drill stem test at 3,260-80 feet showed 5,000,000 feet of gas.

Empire Gas & Fuel Co.'s No. 2 Dyer, NW cor. SE Section 31-25-37, had a show of gas at 2,763-81 feet and is drilling at 2,840 feet in lime.

Gypsy Oil Co.'s No. 1 Arnott, C NE NW Section 2-25-36, topped the brown lime at 3,020 feet and is drilling in lime at 3,296 feet, and its No. 2 Arnott, C NW SE Section 2-25-36, is drilling at 2,207 feet in salt and anhydrite. Same company's No. 3 Arnott, C NW NW Section 2-25-36, set the 13⅝-inch at 340 feet with 225 sacks, topped the anhydrite at 1,230 feet and is drilling in anhydrite at 1,290 feet. Gypsy's No. 1-B Arnott, NW SW SW Section 32-25-37, is drilling at 2,845 feet in lime and anhydrite. It had gas shows at 2,742 and 2,810 feet and cemented the 7⅝-inch at 3,609 feet with 530 sacks. It topped the brown lime at 2,630 feet.

R. H. Henderson and others' No. 1 Langley, C SE SE Section 8-25-37, is drilling by at 2,875 feet, total depth.

Jeffers Oil Co.'s No. 1 Carlson, C NW SE Section 27-25-37, is drilling at 300 feet in red beds. It had a little water at 285-290 feet.

Tide Water Oil Co.'s No. 1 Coats, SE cor. NW Section 31-25-37, is drilling at 1,429 feet in salt and anhydrite.

Hobbs Area

Two completions, one of which extends the productive area slightly to the east in the southeastern part of the field, were reported in the Hobbs Pool. The Capitan Oil Co.'s No. 2 Turner, CWL SW SE Section 34-18-38, in the Hobbs Townsite and less than half a mile from a dry hole which stopped development in that direction several years ago, was given a potential of 13,876 bbls. daily with 13,400,000 feet of gas. These results followed the acidizing of the well four times with 2,000, 3,000, 3,000 and 5,000 gallons, a total of 13,000 gallons. Total depth is 4,204 feet and the pay was found at 4,125-4,204 feet. The 7-inch is at 4,066 feet and the elevation is 3,617 feet. Before acidizing it made 80 bbls. an hour.

The other completion was Continental Oil Co.'s No. 3 Grimes, SW NW SE Section 28-18-38, an inside well. Total depth is 4,225 feet and the elevation is 3,648 feet. The pay was cut at 4,114-4,225 feet and it made 11,100 bbls. initial through the casing with 10,000,000 feet of gas, after acidizing twice with a total of 7,000 gallons.

Continental Oil Co.'s No. 13-B-1 State, C SE SW Section 13-18-37, is rigging up rotary. J. P. Cusack, Inc.'s No. 1 Byers, CWL NW NE Section 3-19-38, is rigging up rotary at 208 feet, and its No. 1-B Moon, SW SE NE Section 28-18-38, is drilling at 3,823 feet in lime and anhydrite. Gypsy Oil Co.'s No. 4 Graham-State, C NW NE Section 24-18-37, is waiting on cement at 3,984 feet after setting the 7-inch at 3,976 feet with 320 sacks. It had an oil show in the Bowers sand at 3,360-65 feet.

National Securities Oil Co.'s No. 1 Linam, NE SE SW Section 33-18-37, plugged back from 4,506 feet to 4,238 feet and treated with 2,000 gallons, is bailing down after acidizing. It is show-

Strong Shows of Gas and Black Crude in Test on the Sage Creek Structure

By VICTOR LAURISTON
Staff Correspondent, Canadian Fields

CHATHAM, Ontario, May 25. — In southeastern British Columbia, Columbia Oils' No. 1 on the Sage Creek structure is below 3,200 feet, with strong shows of gas and black crude. The pressure at intervals blows the oil over top of the derrick. The oil showings in the upper horizons tested around 50 gravity, but oil has been getting heavier as the hole was deepened. Analysis shows a very black paraffin base oil testing 39.2. A report from Dr. K. G. Castor of Cornell University on a core taken at 3,001 feet showed heavy oil impregnation. Previous tests on this structure encountered only light crude and failed to reach the heavy crude horizon. Sage Creek Explorations, Ltd., subsidiary of London Pacific Exploration Co. of Vancouver, is preparing to drill on acreage offsetting Columbia Oils' No. 1 if the latter gets commercial production.

Turner Valley Field

In Section 28-18-2w5, South Turner Valley, British Dominion Oil & Development Corp.'s No. 4, LSD 6, on the west side, is drilling and carrying casing in the "crooked hole" sand below 5,375 feet. Renfrew Royalties' No. 1, Morris & Goodfellow, LSD 3, same section, is below 5,000 feet after running casing and installing new drilling line. Geological information in these two tests has led to resumption on Turner Valley Royalties' No. 1, LSD 13, in the northeast corner, bottomed at 3,060 feet with 15-inch hole.

Farther south, in Section 21-18-2w5, Union-Freehold Oil Corp.'s No. 1, LSD 8, is fishing for drill rods at 5,610 feet. It got the Madison limestone at 5,595 feet. In the southeast corner, Highwood-Sarcee Oils' No. 2 is preparing to start work in LSD 1, less than a mile south of Highwood-Sarcee's No. 1 producer in LSD 16, the most southerly production.

In the North Turner Valley Field, Model Oils' No. 3, LSD 1, Section 22-20-3w5, is working on derrick.

On the east side, South Turner Valley, Merland Oil Co.'s No. 2, LSD 13, Section 27-18-2w5, is preparing to resume from 3,020 feet.

Crude Oil Possibilities

In the North Turner Valley Field, Royalite Oil Co.'s No. 26, LSD 5, Section 23-20-3w5, is maintaining a heavy wet gas flow with crude naphtha recovery averaging around 250 bbls. a day

(Continued on Page 80)

ing from 200 to 400 feet of free oil.

Repollo Oil Co.'s No. 2 Grimes, SW SE NW Section 28-18-38, an old well drilled deeper from 4,223 feet to 4,268 feet, ran the 2½-inch to 4,268 feet and is preparing to test.

Shell Petroleum Corp.'s No. 3 Sanger, SW NW SW Section 27-18-38, began spudding May 8, set the 12½-inch at 260 feet with 150 sacks and the 9⅝-inch at 1,645 feet with 200 sacks. Stanolind Oil & Gas Co.'s No. 26 Byers, C SE NE Section 3-19-38, cemented the 9⅝-inch on bottom at 1,653 feet with 350 sacks and is waiting.

Maljamar Area

Maljamar Oil & Gas Co.'s No. 1 Miller, C NW SW Section 23-17-32, had an oil show at 3,770 feet, an oil and gas show at 3,740 feet and an oil show at 3,728 feet, and is drilling at 3,824 feet in lime.

Nadine Area

Repollo Oil Co.'s No. 1 Arnold, SW NW SE Section 11-20-38, a wildcat 6 miles south of the Hobbs Pool, which had a show of oil in a drill stem test at 4,628 feet, was deepened to 4,755 feet and in a drill stem test at this depth showed 1,600 feet of fluid, of which 400 feet was water, in 15 minutes. The water came from 4,695-4,755 feet. The oil show at 4,350-4,628 feet was acidized with 3,000 gallons, but showed no apparent results. It is shut down for orders.

Lea Area

Texas Co.'s No. 1 Cole, C NE NE Section 35-19-33, North Lea, is preparing to drill deeper from 3,518 feet where it had water in the hole. Jeffers Oil Co.'s No. 1 Jiminez, C SW SE Section 12-20-33, set the 12½-inch at 489 feet and is drilling at 725 feet in sand. Same company's No. 1 Etz, C NE SW Section 12-21-32, is running the 10-inch at 1,125 feet, total depth. Anderson & Pritchard's No. 1 Fisher, C SE NE Section 8-20-35, set the 7-inch at 2,001 feet with 48 sacks and is drilling at 2,235 feet in salt.

Eddy County

Stovall & Marshall's No. 2 Rose, C NE SW Section 28-24-27, a wildcat in the Pecos River district, was plugged and abandoned. It was drilled to 2,374 feet where it had 3½ bailers of water in 16 hours. It was plugged back to 2,370 feet and shot with 10 quarts at 2,320-35 feet with no results.

Premier Petroleum Corp.'s No. 1-E Dexter, C NW NE Section 20-17-30, Maljamar district, set the 6⅝-inch at 2,810 feet with 50 sacks and is drilling at 2,831 feet in lime.

Barnsdall Oil Corp.'s No. 2 Dodd, C NE SE Section 22-17-29, Jackson area, set the 6⅝-inch at 2,208 feet with 60 sacks and is drilling at 2,407 feet in lime, and Dooley & Shank's No. 1 McClay, C NE SE Section 33-18-30, began spudding May 9 and is drilling at 280 feet in red beds.

Getty Oil Co.'s No. 7 Dooley, SW cor. NW Section 24-20-29, Getty Pool, is drilling at 4,815 feet in gray and black sandy shale. Dooley and others' No. 1 Commerce Trust, NW NE SW Section 8-20-27, is drilling at 425 feet.

Rampo Oil Co.'s No. 1 State, NE SE Section 32-17-28, Artesia district, is drilling at 1,375 feet in anhydrite, and Red Lake Oil Co.'s No. 4 State, NW cor. SW Section 22-17-28, had a show of oil at 1,710 feet and is drilling at 1,748 feet. Tignor, Etz & Keyes' No. 1 State, C NE NW Section 15-17-28, is drilling at 1,887 feet.

Continental Oil Co. has let contracts for considerable construction work at its Artesia refinery consisting mainly of major revisions to existing equipment, including the distillation unit, treating plant and tankage.

Bernalillo County

Norins Realty Co., Inc.'s No. 1 Gallegas grant, C NW NW Section 19-11-4e, North Albuquerque, is drilling at 400 feet. This operation was erroneously reported abandoned after completing rig.

Roosevelt County

A telegram to the Clovis Chamber of Commerce states that the Arnold Syndicate, of New York, had taken over the holdings of the Claudell Development Co. in the Pomeroy district and will complete its No. 1 Wilmes, C SW SE Section 21-2s-30. This well drilled sand from 3,628-60 feet in wet hole, the sand showing a mixture of oil and water. This was the top of the Glorietta. No test was obtained. New interests, it is stated, will test the Glorietta and the horizon at 3,345-67 feet where there was a good show of oil.

McKinley County

R. W. Sanderson and others' No. 1, NE SW Section 21-20-9w, Red Mountain district, is moving in rig and materials.

Torrance County

The 48 Petroleum Co.'s No. 1 Greenfield, C NW SW Section 17-9n-8e, Buffalo draw, topped the Pennsylvanian at 63 feet and is drilling in lime and shale at 250 feet.

Otero County

Flynn, Welch & Yates' No. 1 Donahue, C NW NE Section 28-24-15, is drilling at 1,110 feet in shale. It had 60 feet of water at 932-37 feet.

Union County

Sierra Grande Oil Corp.'s No. 1 Rogers, C NE SW Section 4-29-29, Sierra Grande arch, is bottomed at 1,950 feet in shale and granite wash and is running the 10-inch.

San Juan County

Continental Oil Co.'s No. 44, NW NE NW Section 12-29-19, Rattlesnake Pool, cemented the 9⅝-inch at 35 feet with 10 sacks.

COLORADO

Baca County

J. H. Everett and others' No. 1, NW cor. Section 24-32-48, Edler district, is drilling water well and moving in rotary. The block around this test begins in the NE cor. Section 24-31-37; runs west to NW cor. Section 20-31-48; thence south to SW cor. Section 32-3-48; thence to SE cor. Section 36-32-47; thence to the point of the beginning.

Boulder County

Leslie R. Steele and others' No. 1 Maxwell, SW NE NW Section 24-1n-71, Boulder district, is shut down at 917 feet while road to location, which was washed out by recent rains, is being rebuilt.

Grand County

Colorado Oil Refining Co.'s No. 1 Linke, NE SW SW Section 13-1n-77, Granby district, is cleaning out at 1,820 feet, total depth, preparatory to resuming.

Jackson County

Continental Oil Co.'s No. 3 Hoye, NW cor. NE Section 34-9n-78, South McCallum, is reaming and straightening hole at 2,467-90 feet.

Moffat County

Stanolind Oil & Gas Co.'s No. 16-SD Shaw, SE NW NW Section 27-4n-92, Iles Dome, is drilling at 2,355 feet.

Park County

South Park Oil Co.'s No. 1 State, SE cor. SW Section 16-11-75, Hartsel district, finished underreaming to bottom at 1,415 feet and is trying to land the 10-inch at that depth. It is showing considerable gas and some rainbows in the Pierre shale. Its first objective is the Apache Creek (Hygiene) sand expected at 1,800-2,000 feet.

Prowers County

Trojan Oil & Gas Co.'s No. 1 Lotus Oil, NW NE NE Section 15-23-46, Lamar district, has installed new cable, recovered lost tools and is recementing caves in the Cherokee formation. Total depth is 5,224 feet.

WYOMING

Big Horn County

Ohio Oil Co.'s No. 2 Sidon Canal, C SW SW Section 24-56-97, Byron district, is drilling at 2,958 feet in shale, and its No. 3 Byron Union, SE NW NE Section 22-56-97, is rigged and ready to spud. Its No. 1 Till, C SE SW Section

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24-56-97, is temporarily suspended without spudding.

Wyoming Oil & Refining Co.'s No. 1 Evans, NE cor. NW Section 12-49-91, Paintrock structure, is drilling at 215 feet.

Carbon County

Ohio Oil Co.'s No. 1 Kyle, NE SE NE Section 26-21-79, Big Medicine Bow structure, joint with the California Co., which last week was reported flowing 165 bbls. of 63 gravity oil from the second bench of the Sundance in one hour, continues to be the outstanding development of the Rocky Mountain area so far this year. The showing made was through the drill stem and no other test has yet been made. The total depth is 5,393 feet and it is preparing to run the 5½-inch with liner and test. The upper bench of the Sundance showed 36,000,000 feet of gas through a drill stem test and a second gas flow below that horizon and above the oil was not tested. Some estimates of what the well can do run as high as 15,000 bbls. a day. It is probable that the well will outrank any ever drilled in this country for oil of such high gravity. The field is being compared with the Salt Creek discovery 25 years ago, but until the flanks are tested and probable productive area in various horizons determined by the drill it will be impossible to do more than speculate. The drainage area is more limited than Salt Creek. The closure is around 2,700 feet.

Earl W. Reeder, Inc.'s No. 1 Whitford, SW SE SE Section 24-20-84, Overland Dome, is bottomed at 4,365 feet and fishing for two bailers in the hole.

Ohio Oil Co.'s No. 10 Harrison & Cooper, NE NW SW Section 35-20-78, Rock Creek, which was deepened from the Muddy to test the Sundance, is running production string and liner to make a pumping test. It is bottomed in the Sundance at 3,196 feet and had 88 feet of saturation in sand at 3,061-3,196 feet. There was insufficient gas to flow the well. After testing it may drill deeper. Same company is going back into its No. 4 Diamond Cattle, SE SW NW Section 35-20-78, and deepen it from 2,822 feet to the Sundance. It is a north offset to the discovery in that horizon.

Converse County

The first drilling operation in the Big Muddy Field for some time is starting in the Continental Oil Co.'s No. 9 Whiteside-3, SW NE NE Section 7-33-76. Cellar has been dug. It will test the Dakota.

Fremont County

Mid-American Oil Co. is building steel derrick for its No. 3 Government, NW NE SW Section 14-28-92, Sheep Creek. It is located 400 feet northwest of the discovery well which was completed several weeks ago as a producer in the Embar.

Hot Springs County

Argo Oil Co.'s No. 16 Ellen, NE SE NW Section 14-44-98, Hamilton Dome, is rigging up.

Niobrara County

Ohio Oil Co.'s No. 6 Lamb, C SE SE Section 32-36-65, Lance Creek, cored to 3,830 feet in the Sundance and stopped to make a drill stem test. It topped the second bench at 3,788 feet. Argo Oil Co.'s No. 3 Elliott, C NE NE Section 6-35-65, is drilling at 3,000 feet. Continental Oil Co.'s No. 2 Schuricht, C SE NE Section 6-35-65, is building derrick, and its No. 1 Apex-3, SW NE SW Section 34-36-65, is waiting after cementing back from 3,538 feet to 3,444 feet to sidetrack bailer.

Fall River Royalty & Producing Co.'s No. 3-L, NE NE Section 2-39-61, West Mule Creek, is drilling at 345 feet.

Park County

Continental Oil Co.'s No. 3 Northern Pacific, NW SE SE Section 23-58-98, Frannie Field, is building derrick.

Texas Co.'s No. 3 Sonners, NE NW Section 29-51-100, Oregon Basin Field, cemented the 8¼-inch on top of the pay at 3,449 feet and is preparing to drill in.

Sublet County

California Petroleum Corp.'s No. 4-K, SW SE SW Section 34-27-113, La Barge district, is a near completion at 824 feet. The 7-inch was cemented at 685 feet and it is bailing to test.

Washakie County

C. L. Brome's No. 3 Government, SW NW NW Section 31-48-90, Hidden Dome, is drilling at 1,000 feet. Wyoming Oil & Refining Co.'s No. 1 Frison, NW SW NW Section 14-48-91, is drilling at 1,600 feet.

Weston County

One completion was reported in the Osage Field in the Osage Trust Co.'s No. 15-A, NW cor. SE Section 14-46-64, which drilled sand at 2,002-10 feet and is estimated at 40 bbls. a day on the pump.

A new operation is Carl Cundy's No. 9, NW NW NE Section 31-46-63, which is rigging up. F. J. Dilger & Son's No. 1 Thierry, NW cor. SW Section 32-46-63, is rigged and ready to spud, and La Fleishe Oil Co.'s No. 18 fee, C SW SW Section 17-46-63, is shut down for casing.

MONTANA

Glacier County

One completion and two new locations were reported in the Cut Bank Field.

Montana Headlight Oil Co.'s No. 5 Yunck, NW NE NW Section 1-34-6w, which was drilled primarily for an additional gas supply for the town of Cut Bank, went into oil and flowed 95 bbls. the first 24 hours at 2,786 feet, total depth. It set the 8¼-inch at 2,708 feet and had between 2,000,000 and 3,000,000 feet of gas a day and intended to run a smaller string and save the gas between casings when it picked up the oil. The pay was at 2,764-77 feet.

One of the new locations is R. C. Tarrant's No. 1 fee, C NW SE Section 12-34-6w, which has rig on location. The other is Kately-Thronson's No. 1, SW NW SW Section 25-35-6w, which has rig on location.

Askins' No. 1 Askins, Lot 24, Block 33, Section 12-33-6w, is shut down at 2,700 feet.

Consolidated Gas Co.'s No. 5 Tribal, Lot 5, Section 3-34-6w, is drilling at 2,300 feet, and its No. 6 Tribal, C SW SW Section 10-34-6w, is drilling at 2,180 feet.

Dakota-Montana Oil Co.'s No. 2 Winkler, E NE NW Section 26-35-6w, cemented the 7-inch on bottom at 2,840 feet with 50 sacks.

Gardner-Smith's No. 1 Tweedy, Lot 1, NE NE Section 36-33-6w, is drilling at 2,000 feet.

L. R. Hannah, trustee's No. 1 State, Lot 5, Block 4, Section 12-33-6w, is drilling at 1,940 feet.

Indian Oil Co.'s No. 2 Winkler, W SW SW Section 23-35-6w, is drilling at 2,400 feet in new hole.

R. C. Jeffries' No. 2 Lukens, NE cor. Section 12-33-6w, is drilling at 1,520 feet.

Kately-Drumheller's No. 2 Ward, SE NE Section 10-34-6w, topped the Colorado at 540 feet and cemented the 10-inch at 574 feet with 100 sacks.

Montana Power Gas Co.'s No. 1 Bonnett, C SE NW Section 4-32-5w, is drilling at 500 feet, and its No. 1 Heiland unit, NW SE NW Section 27-36-5w, is drilling at 2,630 feet. Same company's No. 1 Lookhoff, C SW SE Section 28-33-5w, is drilling at 1,985 feet, and its No. 1 Miller, C NW NW Section 28-33-5w, is drilling at 2,850 feet.

Nadeau Brothers' No. 2 Coover, C NE NE Section 17-33-5w, is drilling at 1,160 feet, and their No. 4 Van de Mar, C SW NE Section 35-35-6w, is drilling at 1,375 feet.

Santa Rita Oil & Gas Co.'s No. 1 Government, C NE SW Section 4-32-5w, is drilling at 520 feet, and its No. 1 McCabe, C NW SW Section 28-33-5w, is drilling at 600 feet. Same company's No. 1 Ritchie, C NW SW Section 5-33-5w, is drilling at 2,595 feet, and its No. 2 Ritchie, C NE NE Section 6-33-5w, is drilling at 1,700 feet. Same company's No. 5 Whetstone, NE SE Section 22-35-6w, is drilling at 2,340 feet. Steel Creek Producers, Inc.'s No. 2 Carman, C SW NW Section 19-34-5w, is drilling at 1,730 feet.

R. C. Tarrant's No. 1 Ruetten-Wold, C NW NE Section 13-34-6w, is spudding at 330 feet. Texas Co.'s No. 1 Aaronson, C N half SE Section 21-35-6w, is drilling at 337 feet, and its No. 2 Morrison, NW cor. Section 22-35-6w, set the 10-inch at 305 feet with 140 sacks and is drilling at 2,270 feet. Same company's No. 1 Sherburne Mercantile Co., C NW SW Section 10-34-6w, is drilling in at 2,940 feet.

Big Horn County

Enterprise Oil Co. and others' No. 2 Lynde, SW cor. SE Section 21-6s-35, Lodge Grass Creek, has sidetracked 200 feet of 4¾-inch pipe on bottom and is making new hole at 3,655 feet.

Carbon County

Ohio Oil Co.'s No. 15 Montana Industrial, C NE NE Section 11-7s-21, Dry Creek, is drilling at 2,258 feet in shale.

Fergus County

Button Butte Oil & Gas Co.'s No. 1 Woodward, SE cor. SW Section 20-14-24, Button Butte district, is drilling at 3,095 feet.

Liberty County

J. H. Hamilton and others' No. 1 Northern Farms, C NE SW Section 10-37-5e, Flat Coulee, is drilling at 2,700 feet.

Petroleum County

A new operation is Hardendorf & Keyes' No. 1 Austed, SW NW SE Section 22-13n-28, on the Rattlesnake Butte Dome, 12 miles southwest of the Cat Creek Field. It is moving in for a cable tool test to the Cat Creek sands expected at 2,200 and 2,400 feet.

Phillips County

A completion on the Bowdoin structure is reported in the British-American Syndicate's No. 1 Miller (Unit No. 1), SW cor. NW Section 17-32-33, at 1,010 feet, total depth. Gas sands were at 695-995 feet and it gauged 1,146,000 feet the first 24 hours with a rock pressure of 250 pounds.

Guy Norman's No. 1 Pewitt, NE NW NE Section 20-24-24, Guinn district, is drilling at 638 feet, and Grant Smith and others' No. 4 Phillips, NW SW Section 2-24-23, is drilling at 371 feet.

Rosebud County

Birney Oil & Gas Co.'s No. 1, SW cor. Section 7-6s-43, Birney district, which resumed recently after being shut down

(Continued on Page 71)

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TECHNICAL QUESTIONS ANSWERED

By Charles K. Francis, Ph. D., Technical Editor

This department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry.

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to sumbit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation; also those connected with marketing and utilization of petroleum products.

Questions should be submitted in as much detail as possible.

Inquiries must be signed but only the given initials will be printed. The source of the question is considered to be confidential.

Questions requiring a discussion of patents, the use of intricate formulas, extended computations, or cost estimates cannot be considered.

When the matter is of general interest the reply will be published within a reasonable time.

Paraflow Pure Hydrocarbon Oil For Reducing Pourpoint

Will you kindly give me some information, with the name of the maker, about the substance designated Paraflow, which is used for reducing the pourpoint of paraffin oils?—L.E.L.

The product Paraflow was described in The Oil and Gas Journal, November 12, 1931, page 47. The material following is from this article.

"The Standard Oil Development Co. has worked out a method of obtaining oils which flow freely at low temperatures and has attained this end without the degradation incident to dewaxing. It has been found possible to supply a product (U. S. Patent No. 1,815,022) which has all the desirable properties of a wax-containing oil plus the low pour of the dewaxed oil. The method involves the addition of a very small quantity of a specially prepared pure hydrocarbon lubricating oil, capable of reducing the pourpoint of paraffin base oils without the necessity for severe dewaxing. An inspection of this product is given in the following table:

TYPICAL INSPECTION OF PARAFLOW

Gravity, °A.P.I.	23.8
Vis. @ 100° F.	3,612
Vis. @ 210° F.	214
Viscosity index	106
Pourpoint, °F.	25
Flashpoint, °F.	555
Conradson carbon	1.99
Color (Robinson)	1/4
Cast	Green

"It has been found that addition of one-fourth to 1½ per cent of this Paraflow to paraffin base oils reduces the pourpoint from around 30° F. to below 0° F."

An example of an oil with and without Paraflow is from one of the tables.

PARAFLOW BLENDED OIL

	S.A.E. oil No. 30	Same with 1% Paraflow
Gravity, °A.P.I.	27.4	27.5
Vis. @ 210° F.	62.3	62
Vis. index	96	97
Pourpoint, °F.	30	—10
Flash, °F.	415	415
Carbon	0.815	0.829
Demel @ 130° F.	1,620	1,620

It is claimed that this material, unlike soaps, acids, and other foreign addition agents, is completely miscible in the oil, cannot be detected or removed by usual methods.

Additional details are discussed in the reference.

Composition of Flue Gases From Artificial and Natural Gases

It will be much appreciated if you can supply analyses showing the composition of flue gas as it should be obtained when manufactured gas is burned with the required volume of air as compared with natural gas. —R.H.T.

The composition of any gas used for fuel is directly related to the composition of the flue gas. The standard reference tables assume that the composition of the gases before and after burning will be very close to that indicated in the table.

BURNING OF TYPICAL GASES

Kind of gas—	Sp. gr.	B.t.u. (cu. ft.)	Air required (cu. ft.)	Products per cu. ft. gas burned (cu.ft.) CO_2	H_2O	N_2
Coal	0.42	510	5.00	0.50	1.21	3.99
Water	.65	496	4.37	.74	.75	3.54
Oil	.35	510	4 91	.47	1.21	3.91
Natural (a)	.65	1,025	10.70	1.17	2.16	8.50
Natural (b)	.71	1,120	11.70	1.30	2.29	9.26

Discovery of Oil Cracking and Early Process Patents

When and by whom was cracking of petroleum, or any fraction of petroleum, first discovered? If references are available, mention of them would be appreciated.—L.M.E.

The fact that heat treatment of petroleum produces a product of lighter gravity than the charge, that is cracking, seems to have been first observed by Prof. B. Silliman, Jr., who stated in his report, April 16, 1855, to Eveleth, Bissell and Reed, covering the examination of a sample of Rock Oil from Venango County, Pennsylvania:

"The next portion, distilled at about 700° F., gave but about 17 ounces, and this product was both lighter in color and more fluid than the last." One fraction, No. 5, from the crude oil began to boil at 320° F., whereas the next two fractions, obtained at higher temperatures, had an initial boiling point of 275° F. Professor Silliman stated, "The question forces itself upon us, whether these several oils are to be regarded as bodies previously existing, and simply separated in the process of distillation, or whether they are not rather produced by the heat and chemical change in the process of distillation. The continued application of an elevated temperature alone is sufficient to effect changes in the constitution of many organic products, evolving new bodies not before existing in the original substance."

The first cracking to take place in a refinery was accidental, due to a stillman leaving a still under a slow fire at Newark, N. J., in 1861, for four hours. It was found that a part of the distillate had been condensed upon the uninsulated upper part of the still, then dropping back onto the hot oil was cracked into products of lower boiling points. The original patent relating to cracking was obtained by James Young, English Patent 3,345, 1865, who described a distillation in a vessel provided with a weighted valve, or partially closed valve, for the control of the vapors, permitting them to escape at any desired pressure. This caused the distillation to proceed at higher temperatures than that needed for the separation, resulting in partial cracking. The operating pressure suggested was 20 pounds.

Among the most important of the early patents for cracking are those of Dewar and Redwood; who obtained English Patents 10,287 in 1889, 13,016 in 1890, and 5,971 in 1891. The first American patents in which tubes were used were issued to Benton, U. S. Patent 342,564, and 342,565, in 1886. Among the patents that have had much to do with the development of the cracking art are the U. S. Patents issued to J. A. Dubbs, 1,123,502, 1915; W. M. Burton, 1,049,667, 1913; M. J. Trumble, 996,736, 1911; W. M. Cross, 1,203,312, 1916; C. P. Dubbs, 1,392,629, 1921.

References: Silliman report; Amer. Chemist 2, 18, 1871, and The Oil and Gas Journal, September 9, 1926, page 170. An excellent bibliography is that of Lomax, Dunston and Thole, Ind. Eng. Chem., 9, 879, 1917.

Blending Petroleum Liquids To a Desired Gravity

We would like to obtain information on the most generally accepted method for determining the proportion of natural, casinghead, gasoline required to be added to a blending stock to arrive at a blend of the desired gravity when the gravity of each is known. We understand that there is an accepted procedure for determining this factor, sometimes known as the "cross method."—H. L. S.

Petroleum liquids are commonly blended for some desired gravity by means of the rectangle or "cross" method. The gravities of the liquids to be mixed are set down in the left-hand corners of a rectangle, with the gravity to be obtained in the center of the rectangle. Place the difference between the desired number and the two numbers representing the known gravities across in the opposite right-hand corners, at the ends of the corresponding diagonals. Ignoring the zero and decimal, these show the relative number of parts of the given products, as represented by the gravities set down on the corresponding horizontal lines of the rectangle, to be mixed to make the desired gravity product.

An example will make this clear. It is desired to mix a 70° A.P.I., or 0.7022 specific gravity gasoline with a 52° A.P.I., 0.7711 specific gravity naphtha to make a gasoline of 59° A.P.I., or 0.7428 specific gravity. Following the directions:

.7022		.0283
	.7428	
.7711		.0406

Meaning that 283 parts of the 0.7022 liquid and 406 parts of 0.7711 will produce 689 parts of a liquid having a specific gravity of 0.7428. When desired, these may easily be reduced to percentages. The two base liquids should be at the same temperature.

There are several methods for solving such problems, of which the one explained appears to be the simplest.

Conclusions by the C. F. R. Knock Rating and Road Tests

Can you give me a brief explanation of just what was the conclusion of the committee which investigated laboratory testing of a fuel as related to actual operation of a car? This was the test made at Uniontown, Pa., in 1934.—D.V.C.

An effort has been made to adapt the laboratory C.F.R. octane ratings of motor fuels to road performance. A few minor changes were made in the apparatus and in the procedure, the modified test being designated the C.F.R. Motor Method. The former method is retained for experimental purposes, to be known as the Research Method. It was thought that the modified C.F.R. method would give results that could be relied upon when the fuel was used in the ordinary car on the road. The investigations, second series at Uniontown, were undertaken by 41 technical specialists, including representatives from the U. S. Government, manufacturing and consuming units, together with representatives of foreign countries.

The summary following is from the report of C. B. Veal, secretary of the Co-operative Fuel Research Committee.

The road tests at Uniontown were made from July 9 to August 8, 1934. There were 19 cars used for the test, which consumed 2,516 gallons of fuel and produced a total of 50,000 car-miles.

The C.F.R. Motor Method has been adopted as a tentative method of test by the American Society for Testing Materials, A.S.T.M., D357-33T. The maximum variations, found at Uniontown, from the A.S.T.M. method which, occurred for a certain group of fuels were +2.7 and —1.9 octane numbers, and the algebraic average variation for all fuels was 0.36 octane number.

The report of C. B. Veal, the secretary of the Co-operative Fuel Research Committee, give graphs and tables relating to the test. "The average spread of the road ratings illustrate the difficulty involved in attempting to develop a laboratory method which will give better correlation until they can be reduced. It is apparent from the data that the precision and reproducibility of both the road and laboratory method are not as good as could be desired, and it is not likely that better correlation than has been found in these tests can be achieved until improvements in precision have been developed."

References: The Oil and Gas Journal, September 6, 1934, page 12. Report by C. B. Veal; same, November 22, 1934, page 49.

New compressor station of Southern Natural Gas Corporation at Perryville, Louisiana

again SIMPLICITY was the decision

● Again it is proved that the fewer working parts and simplicity of Westcott orifice meters are a real guarantee of accuracy and low maintenance cost. ● In selecting meters for their new station Southern Natural Gas Corporation chose Westcott meters on the basis also of past experience with a large number of these instruments. ● This station employs 28 Westcott meters on 14 runs. The capacity of the installation is approximately 325 million cu. ft. per day at existing field pressures. ● Setting the master and check meters facing each other to make comparison convenient and gage lines uniform are especially noteworthy features in the design of the station. ● The same degree of accuracy—and low operating cost—are equally as important in all installations where gas, oil, steam or liquids are measured. The new Catalog EG2 giving complete data is just off press! . . . and will be mailed on request.

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NATURAL GAS DEVELOPMENTS

First Gas Well Drilled in With PWA Money

HOUSTON, Tex., May 27.—E. R. Owens, drilling contractor of Jackson, Miss., who holds the unique distinction of having completed the first gas well ever drilled with Public Works Administration money, was a visitor in Houston, Tex., last week. Mr. Owens, who has drilled 18 gas wells in the Jackson area, drilled the well for the city of Canton, Miss., under PWA permit No. 3,-708. Location was on the campus of Bellhaven College, a girls' finishing school, in the heart of Jackson. A 24-mile, 6-inch pipe line connects the well with Canton, which has been looped with a 4-inch line, both lines having been built with PWA funds. The well is good for 27,000,000 feet of gas daily, and carries 960 pounds pressure on the casing. The city of Canton also owns a second well adjacent to the one completed by Mr. Owens which is capable of producing 45,-000,000 feet of gas daily. This was purchased by Canton with PWA funds, having been drilled by B. B. Jones. Mayor Harris of Canton, and J. B. Roberts, local insurance man, are credited with bringing municipally owned natural gas to Canton, where it is planned to tempt new industries to locate by offering natural gas at 6 cents per 1,000 feet. Of the 18 wells drilled in the Jackson area by Mr. Owens, 17 were producers. Mr. Owens also holds the honor of having dug the deepest rotary drilled well east of the Mississippi, having carried one test to 8,002 feet.

Utah, Wasatch, Ogden to Be United in Merger

DENVER, Colo., May 27.—A press dispatch from Salt Lake City, Utah, says stockholders of the Utah Gas & Coke Co. have voted in favor of a merger with the Wasatch Gas Co. and the Ogden Gas Co., forming the Mountain Fuel Supply Co., a $20,000,000 corporation. The companies named are subsidiaries of Western Public Service Co., formed in 1928 as a holding company for units organized to produce, transport and market natural gas in the Hiawatha and Baxter Basin gas fields in southwestern Wyoming and northern Colorado. The system was constructed and placed in operation in 1929.

Mountain Fuel Supply Co., largely controlled by Ohio Oil Co., was the producing unit with headquarters at Rock Springs, Wyo. It operates the gas fields and the gathering system which extends from the two fields to Green River. Unita Pipe Line Co. was organized as the transportation company and built the line from Green River to the city limits of Salt Lake City and Ogden. The other companies primarily were distributing units. Whether the merger will include all the units named is not known here.

UNITED GAS LINE

SHREVEPORT, La., May 27.—United Gas Public Service Co. has begun the laying a 12-inch welded line 17 miles long from the Rodessa gas field to its trunk gas line near Belcher, in North Louisiana, providing a second outlet from this field. This is the major project in a $200,000 sum allocated for 1935 in the Shreveport division by this company for pipe line work. It will spend $983,000 in this division this year, including $450,-000 for nine new tests in Rodessa, at an estimated cost of $50,000 each.

Summary of Carbon Black Operations in 1934 Records Marked Progress

The carbon black industry, which had given indications of recovering from the depression in 1933, made marked progress in 1934. Although the indicated plant demand in 1934 was considerably under the total of 1933, prices were approximately 30 per cent higher and it is probable that profits were larger despite the increased costs under the code signed February 8, 1934. Production of carbon black in 1934 was 328,828,000 pounds, an increase of 20 per cent over the output in 1933. Stocks at the plants which had shown a material decline in 1933, due to speculative buying before the anticipated rise in prices, increased approximately 16,000,000 pounds in 1934. The total on hand December 31, 1934, was 171,799,000 pounds, or about six months' supply.

In 1934 the center of the carbon black industry remained practically stationary as production in Louisiana showed approximately the same percentage increase as that in the Texas Panhandle. The output of carbon black in the Texas Panhandle was 72 per cent of the total output of the United States in 1934; the production in 1934 totaled 237,403,000 pounds, an increase of 22 per cent over the production in 1933.

The average yield of carbon black declined from 1.44 pounds in 1933 to 1.43 pounds in 1934, probably a reflection of the gain in relative importance of channel blacks. The carbon black industry utilized 229,933,000,000 cubic feet of natural gas in 1934, compared with 190,-081,000,000 cubic feet in 1933.

Sales of carbon black declined from 374,468,000 pounds in 1933 to 312,612,-000 pounds in 1934, probably due to speculative buying on the part of customers in 1933. Of the total sales, 120,-620,000 pounds (39 per cent) were exported and 191,992,000 pounds (61 per cent) were sold to domestic customers. Of the domestic sales, 165,446,000 pounds (86 per cent) were consigned to rubber companies, 16,146,000 pounds (8 per cent) to ink companies, 5,365,000 pounds (3 per cent) to paint companies, and 5,-035,000 pounds (3 per cent) to companies producing miscellaneous products. The carbon black industry was stimulated by increased activity at rubber factories both here and abroad. The consumption of rubber, both crude and reclaimed, in the United States in 1934 totaled 554,000 long tons, a gain of 14 per cent over 1933. Data on the consumption of reclaimed rubber in foreign countries are not available, but the "absorption" of crude rubber outside the United States in 1934 totaled 488,800 long tons, or an increase of 20 per cent over 1933.

Exports of carbon black decreased 21 per cent in 1934. The United Kingdom, France, and Germany, in the order named, continued to be the leading customers. The value of carbon black exports for 1934 was $5,541,143, or practically the same as in 1933, indicating that increased prices compensated the loss in volume.

Effective January 1, 1934, a new series of carbon black prices were posted; in general, these represented increases over the levels of 1933. The average value of carbon black at the plants advanced from 2.78 cents in 1933 to 3.54 cents in 1934, the total value increased from $7,602,-000 in 1933 to $11,654,000 in 1934.

The primary statistics of the carbon black industry in 1933 and 1934 were as follows:

	1933	1934
Number of producers reporting	*25	25
Number of plants	*51	50
Quantity produced (pounds):		
Louisiana	54,470,000	66,538,000
Texas:		
Breckenridge	†24,499,000	†24,887,000
Panhandle	*194,156,000	237,403,000
Total Texas	*†218,655,000	†262,290,000
Other states	(†)	(†)
Total	*273,125,000	328,828,000
Produced by:		
Channel process (pounds)	*238,026,000	293,546,000
Other processes‡ (pounds)	35,099,000	35,282,000
Stocks held by producers Dec. 31 (pounds)	*155,969,000	171,799,000
Sales (pounds):		
Domestic:		
To rubber companies	191,358,000	165,446,000
To ink companies	18,539,000	16,146,000
To paint companies	6,260,000	5,365,000
To miscellaneous companies	*6,025,000	5,035,000
Total	*222,182,000	191,992,000
Exports:		
United Kingdom	42,604,000	37,697,000
France	32,417,000	22,726,000
Germany	20,327,000	16,499,000
Other	56,938,000	43,698,000
Total	152,286,000	120,620,000
Losses (pounds)	636,000	386,000
Value (at plants) of carbon black produced:		
Total (dollars)	*7,602,000	11,654,000
Average per pound (cents)	*2.78	3.54
Estimated quantity of natural gas used (M cubic feet)	*190,081,000	229,933,000
Average yield per M cubic feet (pounds)	1.44	1.43

*Revised figures. †Oklahoma and Wyoming included with Breckenridge district. ‡1933: Disc, roller, "special," thermatomic, and Lewis; 1934: Roller, "special," thermatomic, and Lewis.

MAGNOLIA PARK SYSTEM

HOUSTON, Tex., May 27.—Work is expected to be started within three weeks on rehabilitation of the city-owned Magnolia Park gas system, with adoption of an ordinance by the city council providing for issuance of $71,000 in gas system improvement bonds. The PWA has allotted a $25,700 outright grant.

Contract for the work on the plant amounting to $41,512 was let to Brown & Root, Inc. Viking Supply Co. has been awarded contract for material, amounting to $31,629.

Mild Weather Affects Gas Company Revenues

NEW YORK, May 27.—Sales of manufactured gas reported for March amounted to 32,099,400,000 feet, a decline of 4.5 per cent, it was announced by Paul Ryan, chief statistician of the American Gas Association. Natural gas sales for the month were 93,342,600,000 feet, an increase of 2.6 per cent.

Domestic uses of manufactured gas registered a sharp decline in March, dropping from 21,242,200,000 feet in 1934 to 19,343,100,000 feet during the current year, a loss of nearly 9 per cent. Domestic sales of natural gas also showed a decline amounting to nearly 5 per cent.

This was doubtless the result of temperatures considerably milder than normal prevalent throughout most sections of the country. The number of degree days (the gas industry's standard measure of weather conditions) for a number of the larger cities served with manufactured gas aggregated only 687 in March, 1935, or 19 per cent less than the normal of 848 for this month. For a group of the larger cities served with natural gas the number of degree days in March, 1935, aggregated only 561, or 7.4 per cent less than the 606 degree days which is normal for these cities in March.

Revenues of the manufactured and natural gas industry aggregated $66,261,-700 in March, 1935, as compared with $68,187,600 in March, 1934, a decline of 2.8 per cent.

The manufactured gas industry reported revenues of $32,227,200 for the month, a decline of 5.8 per cent over the corresponding month a year ago, while revenues of the natural gas industry totaled $34,034,500, or practically the same as last year.

For the three months ending March 31, manufactured and natural gas revenues aggregated $208,716,300, an increase of 1.6 per cent over the first quarter of 1934. Revenues from domestic customers were unchanged for the quarter.

PROJECT AT BRADY, TEX.

BRADY, Tex., May 27.—Application for the construction of another natural gas distribution system in the city of Brady has been made by George E. Poulter and associates of San Angelo, Tex., and Oklahoma City, Okla.

Mr. Poulter proposes to furnish gas to residential consumers for $1 minimum for the first 2,000 feet and 40 cents per 1,000 feet for all additional. The industrial rate will not exceed 15 cents per 1,000 feet, he states in a proposed city ordinance attached to his application. Associated with Mr. Poulter in this venture are his father, J. H. Poulter, and a brother, F. H. Poulter, of Oklahoma City, and another brother, Charles Poulter of San Angelo.

"We are going to investigate this proposed project carefully before we take action on the application for this franchise," Mayor B. A. Hallum stated. This matter will most likely be discussed at the first council meeting in June.

KINGSVILLE GAS PROPOSAL

KINGSVILLE, Ontario, May 25.—The town council of Kingsville will make a canvass of local gas users to ascertain their attitude toward the proposal to supply purified natural gas. A tentative proposal has been submitted by the Southern Ontario Gas Co. to rent the municipal gas mains for $3,000 per year and provide natural gas at 60 cents per 1,000 feet, the agreement to cover a 10-year period.

PERSONAL PARAGRAPHS

COL. R. B. HARKNESS, of Toronto, natural gas commissioner for Ontario, recently inspected the new developments in the Dover Field, Kent County.

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FREDERICK J. WOLFE, chairman of the Anglo-American Oil Company, Ltd., has retired from the board of Pinchin, Johnson & Company, Ltd., paint manufacturers, owing to increasing pressure of business.

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EZEQUIEL ORDONEZ, geologist, of Mexico, and his family have been paying Los Angeles, Calif., a visit. While in Los Angeles they are guests of E. L. DOHENY, with whom he was associated for a number of years.

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NATHAN KRONENBERG, Shreveport, La., oil operator, is critically ill in Beth-El Hospital, in New York City, where he underwent an emergency operation after a ruptured appendix. His wife and sister flew to his bedside from Memphis, Tenn.

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L. J. PUNDT has been appointed division manager for the S. M. Jones Company, in charge of a new Houston division which will be made up of the eastern part of Texas, southwestern section of Arkansas and the State of Louisiana, effective June 1. Mr. Pundt has been connected with the S. M. Jones Company for 11 years, having previously been in charge of the Houston district.

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AXTELL J. BYLES, president of the American Petroleum Institute, spent a few days in Washington, D. C., on business recently.

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LAKEN WIGTON, representing the Guiberson Corporation of Dallas, Tex., was in West Branch, Mich., last week on business.

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CLIFFORD PERRY, a driller in the Ogemaw County Field of Central Michigan, was called to Bowling Green, Ohio, last week by the serious illness of his father, an old-timer who spent most of his life in the Lima, Ohio, fields.

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JOHN E. SHATFORD, National Coordinator of Refinery Operations, has returned to Washington, D. C., after visiting his home in El Dorado, Ark., and attending the recent meeting of the American Petroleum Institute at Tulsa.

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T. K. DONOUGHUE, formerly employed in the Greendale Township, Midland County, Michigan, office of the Pure Oil Company, now is employed by the Oil Well Supply Company at West Branch, Mich., in the Ogemaw County Field.

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A. F. MORRIS, assistant chief geologist, and J. E. HOWELL, production superintendent, of the Empire Gas & Fuel Company, both of Bartlesville, Okla., have returned to their headquarters after an inspection trip through New Mexico and Texas.

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LEO MOORE, drilling superintendent for the Waggoner Refining Company for some years past, has resigned from his position with the company and is launching into oil operations for himself in the Waggoner pasture in the Electra area and is preparing to drill on it immediately.

W. A. (GUS) DELANEY and JOHN FITTS, of Ada, Okla., appeared before the Tulsa Chapter of the American Petroleum Institute on the evening of May 22 and gave very interesting discussions on the Fitts Pool, Pontotoc County, Oklahoma.

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L. E. ULROPE, who has been in charge of sales in Pennsylvania for the Standard Oil Company of Pennsylvania, has been transferred to the New York headquarters of the Standard Oil Company of New Jersey where he will be assistant secretary of Esso, Inc., domestic marketing unit. Mr. Ulrope has been succeeded by E. H. COLLINS, formerly division manager for the Standard Oil Company of New Jersey in South Carolina.

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KENNETH R. KINGSBURY, president of the Standard Oil Company of California, has been appointed chairman of the finance committee of the World's Fair to be held in San Francisco in 1938 to commemorate completion of the trans-bay bridge and the opening of the bridge across the Golden Gate. Mr. Kingsbury has appointed as his assistants A. V. GIANNINI, HERBERT FLEISCHHACKER, A. B. C. DOHRMANN, WALLACE M. ALEXANDER, FRANK B. ANDERSON, GEORGE D. SMITH, R. F. ALLEN, ROGER D. LAPHAM, JOHN E. FRENCH, and A. D. McDONALD, of San Francisco, and J. D. KNOWLAND of Oakland, all of whom are vitally interested in the oil industry in California either as operators or holders of oil interests in the State.

ANGUS CRITES, Maricopa; W. J. SCHULTZ, Bakersfield, and LLOYD WILLIAMSON, of Fellows, have been elected to the executive committee of the California Oil Producers Agency, and L. I. WEILL, of Bakersfield, has been appointed to the publicity and tax committee.

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ROGER C. KNIGHT, representative of Oil Well Supply Company, Buenos, Aires, Argentine, South America, was in Tulsa last week in the course of a tour through the oil fields of the Gulf Coast, Mid-Continent and Eastern districts of this country. Mr. Knight sails from New York City for his home early in June.

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HAROLD R. DEAL, advertising and sales promotion manager of the Associated Oil Company, has been elected president of the San Francisco Advertising Club. Mr. Deal before going to the Associated Oil Company was formerly assistant advertising manager of the Tide Water Oil Company and maintained headquarters in New York.

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H. JOHN EASTMAN, president, Eastman Oil Well Survey Company, Long Beach, Calif., left recently for Texas, where he was joined by WILLIAM G. JAMES, vice president of the Eastman Oil Well Survey Company of Houston, Tex. Mr. Eastman and Mr. James will embark on the S. S. Bremen, from New York City for a six months' trip to Rumania, Burmah, Germany, France, and England.

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CLYLE R. SMITH, in the scouting department of the Magnolia Petroleum Company, Dallas, Tex., is to be married to MISS MARJORIE DOSHER of that city, on June 12.

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BAIRD H. MARKHAM, director of the American Petroleum Industries Committee, from New York City, spent a few days in Washington, D. C., on business.

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E. S. AMEY, formerly in the Muskegon, Mich., plant of the Naph-Sol Refining Company, now is pipe line superintendent for Naph-Sol at West Branch, Mich., handling Ogemaw County crude.

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FAYETTE B. DOW, general counsel of the National Petroleum Association and the Pennsylvania Grade Crude Oil Association, has returned to Washington, D. C., from a business trip of several days in New York.

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LAWRENCE BROCK, of Abilene, Tex., has been elected president of the University of Oklahoma Petroleum Engineers Club. LOUIS MACK, Parsons, Kans., is vice president, and WILSON H. COCHRAN, Mercer, Pa., secretary-treasurer.

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L. A. HINES, of Kenosha, Wis., is being transferred to Fort Worth, Tex., by the Macwhyte Company, and is to be in charge of the company's business in that division. LEE CALDWELL is district representative for the company in Texas.

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KANJI UCHIDA, geologist, Nippon Oil Company, Ltd., Tokyo, Japan, was a visitor in Tulsa last week in the course of a tour of the United States that will cover the principal oil fields between San Francisco, Calif., where Mr. Uchida landed, and new York City where he embarks to return to Japan.

DO YOU REMEMBER?

From The Oil and Gas Journal Files

25 Years Ago

May 30, 1910

L. H. Thornton, of Wellsville, N. Y., has purchased the Dutch Whiteturkey and Silver Lake leases in the Nowata Field, Oklahoma.

The Gulf Pipe Line Co. of Oklahoma now occupies most of the Central National Bank Building for its offices in Tulsa. C. C. Barry, assistant general manager, is in charge; E. T. Gatrell is superintendent of pipe lines; A. C. Braymer, superintendent of production, and Benjamin Mossman and Murray Doan are in charge of land and leasing.

Mr. and Mrs. William J. Bovaird, of Independence, Kans., observed their twenty-fifth wedding anniversary on May 21. They were married in Bradford, Pa.

The Texas Co. has increased its capital stock from $18,000,000 to $36,000,000. The company's 1909 dividend was $17 per share.

20 Years Ago

June 3, 1915

W. T. Munn, age 46 years, president and general manager of the Kanotex Refining Co., died of appendicitis in Independence, Kans. The burial will be held in Orange, N. J.

Cushing Field production has taken a spurt upward and is now 285,000 bbls. per day. Deeper drilling in the north end of the field is responsible.

The Roxana Petroleum Co. and Tide Water Oil interests are trying to buy properties in the Cushing Field. The Tide Water is already interested in properties there which are producing 40,000 bbls. per day and Roxana has a foothold in the big field by a recent purchase, and is dickering for more.

Wildcatters are drilling in 31 Texas-Louisiana, Gulf Coast and Southwest Texas counties and parishes.

White & Sinclair, of Tulsa, have purchased from George Harmon and associates 30,000 acres of land in the Panuco Field in Mexico. The purchase price is said to have been $2,000,000.

10 Years Ago

May 28, 1925

R. V. Hanrahan, president of the Humble Pipe Line Co., is back on the job after a successful operation for appendicitis.

Smackover Field production hits a new peak of 392,620 bbls. per day. The oil sells at 90 cents per barrel, with some companies paying a premium for the very desirable heavy crude.

In the first quarter of 1925 the Humble Oil & Refining Co. led all Texas companies in production with 4,968,389 bbls. valued at $8,738,382, an average of $1.75 plus per barrel.

GEORGE RAWLINGS, of Chatham, Ontario, visited Toronto recently on business.

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HUGH ALLSPAUGH, independent operator of Amarillo, Tex., is quite ill at St. Anthonys Hospital.

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H. E. MORGAN, of Turner Valley, Alberta, is drilling for gas in the Lloydminster Field in Saskatchewan.

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R. C. STEINMAN, chief scout for the Sinclair Prairie Oil Company at Tulsa, visited the company's office at Houston, Tex., last week.

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E. H. SALRIN, first vice president of the Tide Water Oil Company at Houston, Tex., has returned from a business trip to New York.

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C. C. BENEDICT, of the Socony-Vacuum Corporation, New York, has been chosen chairman of the New York Petroleum Industries Committee.

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MILDRED ALDRICH, secretary to DON EMERY, chief counsel for the Phillips Petroleum Company, Amarillo, Tex., is spending three months in California on leave.

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GODFREY M. BRIGHAM, Tulsa, vice president, North American Car Corporation, underwent an operation for gallstones at the Halstead Hospital, Halstead, Kans.

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RODNEY PRIZER, who has been connected with the Vacuum Oil Company, Ltd., with headquarters in London, England, has retired from active service with the company.

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J. F. BONNELL recently joined the staff of the Frick-Reid Supply Corporation as manager of the West Branch, Mich., store. JOSEPH CRAWFORD, of Mount Pleasant, Mich., is his assistant.

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K. M. FAGIN, formerly engineer for the Stanolind Oil & Gas Company, and for Tide Water Oil Company, in the East Texas Field, has joined the engineering staff of the Magnolia Petroleum Company in Dallas, Tex.

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E. L. (DAVE) DAVENPORT, district superintendent for the Shell Petroleum Corporation in East Texas, with headquarters at Kilgore, Tex., has resigned his position with the company effective June 1.

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J. PEVSNER, chairman of Russian Oil Products, Ltd., has become chairman of "Soyouzneft," the export oil organization of the U.S.S.R. He has been chairman of Russian Oil Products, Ltd., since March, 1932. Before going to England, Mr. Pevsner was a member of the board of "Soyouzneft." He has been associated with Russia's oil industry for many years, and was born in Baku 43 years ago.

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W. D. SHAFFER, head of the Shaffer Tool Works, Brea, Calif., returned to his headquarters last week after a two months' trip, accompanied by MRS. SHAFFER. Mr. and Mrs. Shaffer attended the Oil Exposition in Houston, Tex., in April, then, after a short tour of the Gulf Coast territory, embarked for Cuba and returned to the Pacific Coast via the Panama Canal.

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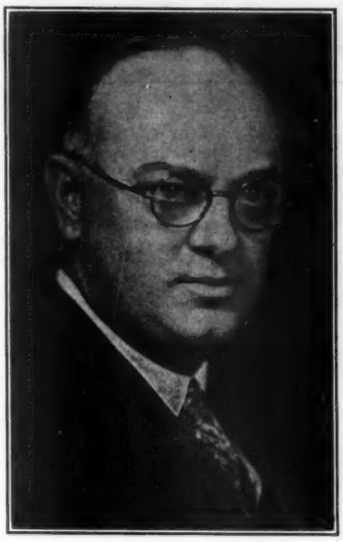
DR. JOHN D. CLARK, of Cheyenne, Wyo., formerly president of the Midwest Refining Company and vice president of the Standard Oil Company (Indiana), now professor of economics at Denver University, has returned to his home in Cheyenne, after an extended trip to the East. He attended a meeting of a committee of the American Bar Association in Washington, D. C., that is making a special study of the NRA, and was the principal speaker at a meeting of the Chicago Rotary Club.

Many Activities Get His Attention

Many calls for service have been made upon Charles F. Roeser outside those connected with his personal business interests, and he has responded to so many of them that the question of finding time to eat and sleep must sometimes assume serious proportions. He is president of Roeser & Pendleton, Inc., which has important oil operations in Texas, and that is enough to keep any man fairly busy. But besides that he was picked by President Roosevelt as a member of the Planning and Coordination Committee; he organized the Texas Oil and Gas Conservation Association, which got a special session of the state legislature to pass a new oil and gas bill; he served three years as a vice president of the American Petroleum Institute; he is active in Boy Scout work, for several years was a regional director and received the Silver Beaver award for distinguished service in that organization; he has been in the forefront of the crusade for saner development of oil fields, and he always is interested in civic affairs.



CHARLES F. ROESER

President, Roeser & Pendleton, Inc., of Fort Worth, Tex.

Mr. Roeser was born in Marietta, Ohio, in 1887. His father was an oil operator and the young man, while a student at Marietta Academy and later at Marietta College, worked as a roustabout during vacations. In 1906 he and his brother, W. H. Roeser, became drilling contractors in Oklahoma. Afterward, as independent oil operators, they were active in development of the Cushing and other Oklahoma pools.

The World War came on and Mr. Roeser took time out for military service. Following the armistice he returned to oil operations in Oklahoma and in 1920 he and T. T. Pendleton formed the firm of Roeser & Pendleton, Inc., with headquarters in Fort Worth, Tex. At one time this firm owned fully half of the Cook ranch oil pool in Shackelford County, Texas.

To save time Mr. Roeser makes much use of airplanes. When daylight air service was inaugurated January 14, 1935, between Fort Worth and New York he was a passenger on the first ship out. He resides in Fort Worth, where he is a member of the Fort Worth Club and the River Crest Country Club. He likes golf and hunting.

TOM R. PARKER, geologist of Schermerhorn Oil Company, and MRS. PARKER, have been touring the northern states on a vacation trip.

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J. H. BRODERICK, president, and J. WEAVER SMITH, vice president, of Broderick Company of Muncie, Ind., are visiting the Mid-Continent fields.

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HENRY WOODHOUSE, president of the Midwal Oil & Gas Company, of Toronto, Ontario, accompanied by his son, "SLIM" WOODHOUSE, recently made an inspection of oil and gas fields in Kent County, Ontario.

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WYNNE MERRILL and family have returned to Negritos, Peru, after spending a four months' furlough in Canada and the United States. Mr. Merrill is superintendent of garages for the International Petroleum Company.

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I. A. O'SHAUGHNESSEY, St. Paul, Minn., president of the Globe Oil & Refining Company, Globe Pipe Line Company, Lario Oil & Gas Company and subsidiary concerns, was in Oklahoma and Kansas last week, and has returned home.

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R. E. COLLOM, of Continental Oil Company, has been elected president of the Kettleman North Dome Association, and C. P. WATSON, of Milham Exploration Company, and A. L. WEIL, of General Petroleum Corporation, vice presidents. C. E. SAMPSON and W. B. THOMSON were re-elected secretary-treasurer and assistant secretary-treasurer, respectively.

H. G. TEXTER, sales engineer, Spang, Chalfant & Company, Tulsa, is at the home office of his company in Pittsburgh, Pa.

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CHARLES F. URSCHEL, Oklahoma City, Okla., and MRS. URSCHEL have returned from a world cruise on the liner Empress of Britain.

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FREDERICK K. FOSTER, independent geologist, San Antonio, Tex., formerly with the Sinclair company, has been spending the week in Tulsa.

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LEWIS V. McMILLAN, representing the Gas Producers Syndicate, Ltd., of Detroit, Mich., made a business trip to the Kent County, Ontario, fields recently.

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J. W. SELBY, chief scout for the Shell Petroleum Corporation, with headquarters at Houston, Tex., was a business visitor to San Antonio, Tex., the past week.

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H. B. BARNARD, with the Sinclair Prairie Oil Company, with headquarters at Tulsa, was a business visitor to the company's offices at Houston, Tex., the past week.

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CONRAD W. JOHNSON, of Seattle, Wash., visited Alberta recently in connection with projected development work by California interests on the Watson structure.

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TOM HUNTER, independent operator of Wichita Falls, Tex., addressed the Texas Women's College Alumnae and Ex-Students Association at a dinner held on the evening of May 25.

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JOHN T. JONES, in the land department of the Magnolia Petroleum Company, Oklahoma City, Okla., attended the National Oil Scouts Association's annual convention at Corpus Christi, Tex.

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CHARLES L. CLARK has been elected a vice president of the Drilling & Exploration Company, Inc., of California, and will serve in the capacity of general field manager, with headquarters at Avenal, Kettleman Hills.

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R. G. ALLEN, general manager of The Cabot, Inc., of Pampa, Tex., has returned from a business trip to Tulsa.

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W. S. HENDERSON, of Calgary, Alberta, has been elected president of Globe Royalties, Ltd., of that city, succeeding the late ROBERT GILRUTH.

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A. I. BRAINARD, president of the Beaumont Iron Works, has returned to Beaumont, Tex., after a trip through West Texas and the Hobbs, New Mexico, Fields.

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W. A. SCHLEUTER, president of the Refinery Supply Company, is leaving Tulsa this week with his son for a business trip by car through many of the northeastern states and will visit in Canada.

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JOHN PADDLEFORD, geologist-engineer, at Ellinwood, in western Kansas, for Stanolind Oil & Gas Company, has been transferred to Wichita as a geological scout.

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HOWARD S. BRYANT, division geologist, and D. N. HILL, head of the land department of the Kansas division of Skelly Oil Company, were visitors in Tulsa last week from Wichita.

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H. E. MERRILL, assistant manager of the Southern Ontario Gas Company of Buffalo, N. Y., visited Kingsville, Ontario, recently to confer regarding the proposed introduction of purified gas in that community.

FIELD PROBLEMS FROM READERS

Edited by Thomas F. Smiley

This department is conducted in order that men connected with the drilling, producing and transporting branches of the petroleum industry may obtain aid in solving problems that confront them in their work. Readers are invited to send questions freely. These questions will be placed in the hands of persons capable of answering them authoritatively, and the answers, based on the best available information, will be published.

Each question should give as much detail as possible, especially if it involves depths of sands, types of sands and operations on adjoining or nearby proptries. The source of questions will be considered confidential, and only the initials of the sender will be published. Questions involving patented processes, intricate formulas or estimates of cost cannot be answered. If an immediate answer is important, one will be given by mail when the writer requests it.

In this connection, The Oil and Gas Journal will be glad to publish articles from field men who have devised new methods or improved old ones.

Many Considerations Enter Into Deciding Height of Derrick

Perhaps you will be good enough not only to settle a little argument that has arisen here, but also to give us some information concerning the conditions that guide oil operators in deciding what height derrick to build. In the first place, what are the standard heights for derricks for rotary drilling and for cable tools? Is 122 feet the highest derrick used? What considerations lead the producer to use a high derrick or a low one?—H. D. E.

Many considerations enter into the selection of the derrick best suited to meet the conditions prevailing in a given field. These are summarized comprehensively by L. C. Uren in his work on "Petroleum Production Engineering." He says:

"Of the different sizes of derricks adopted as standard, only the larger three are appropriate for rotary drilling. The most widely used size of the three is the 122-foot derrick, though of late some operators in the very deep fields have been specifying 136-foot derricks. Earlier rotary drilling in the shallower territory in many instances made use of 106-foot derricks. This size, however, is no longer standard. The 94-foot derrick is appropriate for rotary drilling only in the comparatively shallow fields. For cable drilling most operators would probably prefer the 73 or 80-foot tower, the 87-foot derrick being necessary only in the drilling of unusually deep wells. The 66-foot derrick is primarily a production derrick, though it may be used for cable drilling in shallow territory. There has been limited use of 166-foot derricks in rotary drilling in western American oil fields, and in one instance a derrick 178 feet high and 32 feet square at the base was used.

"Selection of the size of derrick is governed primarily by considerations of economy in installation cost and saving of time in handling long strings of tools, drill pipe and casing. In deep drilling very heavy hoisting blocks and hooks must be used, and these, being longer than the lighter equipment designed for drilling to shallower depths, require more head room. In rotary drilling the higher derricks permit of handling longer stands of drill pipe, thus expediting the work of withdrawing and inserting drill pipe. This advantage is especially important in deep drilling, where a considerable percentage of the total time available for drilling is spent in changing bits.

"In selecting a type of derrick appropriate for his purpose, the oil producer must consider not only its utility in drilling the well but also its adaptation to subsequent repair and cleaning operations during the period of production. A full-sized rotary derrick is much larger and heavier than will be necessary for subsequent maintenance of the well, and in order to recover a part of the investment in the heavier and larger structure needed during the drilling stage, some operators disassemble the drilling derrick when the well is finished and substitute a smaller and lighter operating derrick. The larger structure may thus be used repeatedly and exclusively in drilling operations. Tearing down and reassembling derricks in this way is less feasible with timber derricks than with steel derricks.

"When the drilling derrick is replaced by an operating derrick, it is often important that the well should not be without a derrick for any length of time, as in case of accident or any other emergency there would then be no means of manipulating tools or heavy fittings in the well or about the casinghead. Some operators erect the smaller operating derrick inside the drilling derrick before the latter is removed. One style of steel derrick is so designed that after well is completed the upper portion of the tower —generally the upper 84 feet—can be detached from the lower portion and lowered integrally through it with the aid of blocks and some additional steel work supported by the lower members. The 84-foot operating derrick rests on a 20-foot square inner section of the original 26-foot base provided for the higher structure. The lower portion of the drilling derrick is then removed and may be used in the drilling of another well, in combination with a new 84-foot top."

Ascertaining Number of Strokes Made by a Pipe Line Pump

Can you inform me whether there is a recorder on the market for recording the average strokes per minute or per hour of plunger-type pipe line pumps?—A. W. C.

You do not specify the kind of plunger-type pumps you have in mind, and that makes a difference.

If you have a power-driven plunger-type pump you can obtain from any instrument manufacturer either a recording speedometer or a revolution counter. Knowing the speed it is not difficult to determine strokes per minute, per hour or any other length of time. With the revolution counter it will be necessary to time the movements or check recordings at regular intervals.

If the pump is of the direct-acting type this department knows of no instrument that will serve your purpose. A recording tachometer will give speed of engine shaft and from this it is possible to figure plunger speed.

Role of Gas Lift Different With Field Put Under Proration

I am one of a little group of men who have an interest in some wells in Texas. These wells are not permitted to produce to their capacity, being under the proration system. The man in direct charge of the wells is advising installation of the gas lift method of production for some of the wells and perhaps all of them eventually. None of us here has any practical knowledge of oil operations, but in reading about this matter I find that the purpose of the gas lift is to recover the oil from a well more thoroughly and quickly than can be done by pumping. Since these wells are not allowed to produce to capacity anyway, it is not clear to us why the gas lift would be advisable. Can you advise us on this matter?—E. A. F.

It is quite probable that the production superintendent in charge of your wells is offering sound advice, for the gas lift has its value under certain conditions even when wells are under proration. This subject was discussed at length by Lyndon L. Foley in a paper from which the following is quoted:

"Gas lift was adopted by the oil industry at a time of unrestricted production. The aim of production practice was to produce the greatest possible amount of oil per day and capacity was the primary consideration. Gas lift was used also to produce quantities of liquid above the ordinary capacity of pumping equipment.

"Reservoir pressures declined rapidly under capacity production and the effective life of straight gas lift installations was short. Gas lift was considered an intermediate stage between flowing and pumping and to justify gas lift economically it was necessary to balance the cost of the gas lift against production gained above the capacity of pumping equipment and also to balance the cost of gas lift against the interest and depreciation charges which would have been incurred by pumping equipment during the time gas lift was in operation.

"Overproduction of oil has led to restriction of production in flush fields during recent years and this restriction of production changes the role of gas lift materially. The severe restrictions which are common nowadays remove extra production as a factor in favor of gas lift. On the other hand, the restriction of production leads to much slower decline of reservoir pressures and prolongs the life of straight gas lift installations considerably. This gives gas lift the advantage of several years more through the saving of interest and depreciation on pumping equipment.

"If gas lift is used to supplement reservoir energy, and is used to lift allowable production of a few barrels per day, economy of installation and operation becomes the primary consideration. The planning of gas lift installations under such conditions is a quite different problem from planning gas lift installations for unrestricted production. In planning a gas lift installation for restricted production, consideration of economy makes it desirable to use the lowest possible pressures and input ratios.

"The use of low pressures and small volumes will decrease the requirements of compressor plants and distribution lines, thereby reducing installation costs. The use of low pressures and small volumes will decrease also the power requirements which is especially important if electric power is used. Straight gas lift fails when the reservoir pressure becomes less than the operating pressure necessary to flow the oil and gas to the surface, therefore the lower the operating pressure the longer will be the effective life of a straight gas lift installation. The input gas tends to evaporate the lighter fractions from the crude oil so it is desirable to use the smallest possible input volumes in order to maintain the gravity of the crude oil produced.

"Operation at low pressures may be achieved by using shallow submergence of the flow string and using flow valves or jet holes to aid in starting the flow. Small input ratios may be achieved by installing flow strings properly designed for the rates of flow to be used. For greatest efficiency each well must be studied and regulated to operate at the proper input volume. Each given well and flow string has its characteristic maximum productivity for a given submergence and a minimum amount of input gas for this amount of production. Increasing the amount of input gas above this minimum will not increase the production but will merely increase the input ratio and may actually decrease the amount of oil produced."

Why Was It Called That?

STEAM ENGINE

The steam engine, so called because the expansive force of steam is used to transform the energy of heat into work, scored one of its triumphs when it was utilized to draw the first crude railroad trains. In 1831, when a train overtook a horse-drawn coach, that was news. The Albany (N. Y.) Daily Advertiser published this item in June, 1831: "On Monday, the American locomotive De Witt Clinton, in returning from Schenectady with a train of cars, overtook the coaches drawn by horses which had started some time previously, returned several miles, overtook them again, and finally ran 7 miles and ½ in 13 minutes. Yesterday the train came down with four cars and 68 passengers in 35 minutes, this being the quickest trip yet made. The speed of the engine is now fully tested, and the only thing remaining is to ascertain the most convenient fuel."

Michigan Fields

(Continued from Page 60)

Section 7-6n-4e, a Vernon Township, Shiawassee County wildcat. Officials confirmed the report oil was encountered at 1,820 feet, but no estimate as to the quantity or quality was available.

Chapin Oil & Gas Co.'s No. 1 Sutlif, Section 16, Chapin Township, Saginaw County wildcat, was reported shut down about 60 feet in the Dundee limestone after striking oil, gas and water.

Preparations are being made to deepen the Hadley Oil & Gas Syndicate's No. 1 Halpin Estate, Section 36-7n-9e, Elba Township, Lapeer County, which was dry in the Bera at 1,344 feet early this month.

T. K. Buzard, of Mount Pleasant, will drill a new wildcat test as the No. 1 Nevill, SE SE NW Section 19-17n-3w, Sheridan Township, Clare County, after transferring a previous permit for his No. 2 Sheehan, never drilled.

Strange and Fortney, of Mount Pleasant, have moved in a rig on the No. 1 Patterson and Day, Section 19, Cherry Valley Township, Lake County, near Baldwin, to deepen a formerly abandoned unsuccessful Traverse test into the Dundee. It was plugged about five years ago at 2,970 feet. It will be drilled by J. W. McIntosh.

A new wildcat location was reported being considered in Section 13, Evergreen Township, Montcalm County, on the Steere farm.

Kansas Fields

(Continued from Page 52)

Siliceous lime which had not been acidized. It was completed.

Shell Petroleum Corp. and others have cellar dug and rig material in for No. 1 Haxton, 350 feet north and 440 feet west of C Section 33-18-9w. Anderson & Kerr made a location for a wildcat test, No. 1 Wernet, NW NW NW Section 24-20-6w. Shell Petroleum Corp. was moving in materials for No. 6 Tournear, SE NW SE Section 29-19-9w. Roy Ramsey and others' No. 2 High School, 980 feet from south line and 980 feet from west line of NW quarter Section 32-19-9w, being deepened from 3,267 feet, was drilling at 3,380 feet.

Vickers Petroleum Co. and others' No. 1 Gouldner, SE NE NW Section 16-18-9w, a wildcat test, had Kansas City lime at 2,879 feet (corrected depth) and 4,480,000 feet of gas, at a total depth of 2,982 feet. The gas will be killed off and drilling continued.

Shell Petroleum Corp.'s No. 4 Ploog, 350 feet south and 440 west of C Section 33-18-9w, swabbed 390 bbls. of oil in nine hours, and later flowed 30 bbls. in 16 hours from Siilceous lime at 3,214-30 feet, total depth.

Phillips Petroleum Co.'s No. 5 Link, NE NW SW Section 21-19-9w, had 2,100 feet of oil in the hole from Siliceous lime at 3,213-50 feet.

Marathon Oil Co.'s No. 2 Grove, NE NE NW Section 29-19-9w, had 2,000 feet of oil in the hole from Siliceous at 3,257-61 feet.

Shell Petroleum Corp.'s No. 4 Tournear, NW NE SE Section 29-19-9w, found Siliceous lime at 3,224 feet and the well swabbed 164 bbls. in seven and one-half hours.

Reno County

The only completion in Reno County was a wildcat failure, Privett Drilling Co.'s No. 1 Crotts, 310 feet from north line and 1,010 feet from west line of NE quarter Section 27-26-10w, which was abandoned at 4,430 feet. It had a hole full of water from Siliceous lime at 4,425-30 feet.

Manning & Terry and Reserve Petroleum Co. made a location for No. 2 Georing, SE NW NE Section 1-23-4w, in the Burrton Pool.

Dickey Oil & Refining Co. and Indian Territory Illuminating Oil Co.'s No. 3 J. Baughman, C NW NE Section 3-24-4w, in the southern end of the Burrton Pool, had chat at 3,253-65 feet, total depth, and flowed 177 bbls. naturally in 24 hours with 5,000,000 feet of gas. It will be acidized.

Sinclair Prairie Oil Co.'s No. 6 Base, NW NW SE Section 26-23-4w, swabbed 130 bbls. of oil and 30 bbls. of water and later pumped 630 bbls. from Hunton lime at 3,593-93½ feet.

Sedgwick County

Dickey Oil Co. completed No. 1 Lohkamp, SW SE NW Section 20-28-1e, Robbins Pool, Sedgwick County, in chat at 3,090 feet, total depth 3,118 feet. It pumped a potential production of 575 bbls. after an acid treatment.

Phillips Petroleum Co.'s No. 3 Nolan, NE NW NW Section 21-28-1e, swabbed 115 bbls. in eight hours, with 6 bbls. of water, from chat at 3,098 feet, total depth 3,127 feet, which had been acidized, but it was not completed.

Sumner County

Shell Petroleum Corp.'s No. 1 Green, a wildcat in SE SW NW Section 3-33-2e, Sumner County, was a hole full of water from Siliceous lime at 3,486-3,507 feet and was abandoned.

Cowley County

A. McCoy's No. 1 Brandenburg, SW SW SE Section 14-34-5, a Cowley County wildcat, was abandoned at 3,200 feet. It found only water in Mississippi lime at 3,185-3,200 feet.

Eastern Fields

(Continued from Page 56)

In Wirt County, L. B. Carroll and others completed a second test on the D. P. Ferree farm in Burning Sands district in the Keener sand at a depth of 1,956 feet. It is a gas well gauging about 100,000 feet a day.

Drilling in West Virginia

In Boone County, Owens Illinois Glass Co. is down 2,270 feet drilling the second test on the S. M. Wheeler heirs farm and 1,425 feet in the test on the H. C. Vandelinde farm, both in Washington district. This company has the rig completed for No. 21 on the Cassingham Coal Land Co. tract. In Sherman district the company has reached 1,260 feet on the Peytonia Coal Land Co.'s No. 20. Pure Oil Co. is drilling at 1,784 feet in No. 73 on the Federal Coal Co. tract.

In Cabell County, J. W. Ramsey & Sons have started drilling deeper on the W. E. Duncan farm in Guyandotte district and are at 2,900 feet. In this district, R. J. Petry and others are drilling at 800 feet on the Virginia Powell farm. In McComas district, R. H. Adkins, trustee, shut down at 2,000 feet for casing on the Benjamin Bledsoe farm. W. C. Kingery and others are at 1,300 feet on the Augusta Beckett farm.

In Calhoun County, Starcher and Richards have completed rig on the R. P. Ritchie farm in Sheridan district. In Sherman district these operators have also completed rig on the Albert Kight 26-acre farm. C. B. Lewis is drilling at 1,125 feet on the M. J. Kight farm, No. 2. Ferrell and others are at 1,650 feet on the Johnathan Burrows farm. In Lee district, Everett Starcher and others are drilling at 700 feet on the C. C. Starcher farm. In Washington district, J. J. Massey has spudded on the E. P. Cottrill farm. Harper Oil & Gas Co. has reached 1,200 feet on the O. J. Conley farm.

In Marion County, Owens Illinois Glass Co. has reached 1,075 feet on the A. T. Heck farm in Paw Paw district. In Marshall County, Myers Oil Co. abandoned the location on the G. M. Strickland farm in Sandhill district and hauled rig away.

In Pleasants County, on the waters of Calf Creek in Grant district, J. W. Ruckman and others have started drilling on the D. R. Westbrook farm.

In Ritchie County, W. A. Bickerstaff has completed a rig on the Lakin Prichard farm in Union district. On Leatherbark Creek, W. H. Bickel has started drilling No. 5 on the U. S. Fluharty heirs farm in Murphy district.

In Roane County there is considerable activity. In Smithfield district, Guy Boggess and others are building a rig on the Anderson Boggs farm. Spencer Natural Gas Co. is down 1,190 feet on the J. D. Young farm. Big Four Drilling Co. has a rig completed on the Mary E. Hershberger farm. Jackson and Bowers are drilling at 1,900 feet on the J. A. and Amy Sarver heirs farm. Orchard Run Oil & Gas Co. is drilling at 1,855 feet on the Leonard Brannon farm. In Spencer district, Henderson Oil Co. is down 2,161 feet on the Vineyard and Vendevender farm. D. S. Fisher has reached 1,625 feet on the Stella V. Knotts farm. J. K. Armstrong and others have a location on the Daniel Kendall farm.

In Curtis district, Roane County, Adams and Weekley have a machine on the G. B. Norman farm about one-quarter mile east of the McIntosh and Norman test, which was a 15-bbl. producer. H. H. Staats and others have a location on the R. R. Petty farm. W. B. Heeter is down 1,400 feet on his own farm. Reedy Oil & Gas Co. has reached 650 feet on the L. M. Riddle farm, No. 7, and 1,150 feet in the test on the Alfred Moore farm.

California Fields

(Continued from Page 59)

the maximum amount of drainage area and therefore a much higher ultimate recovery as it permits even spacing of wells. Therefore, if one goes on a visit through the Dominguez or Long Beach Fields and notices the bases of several rigs almost touching he should not get the impression that operators are violating the economic law of diminishing returns because the wells in question might be producing from separate zones.

During the early part of the week, the Union Oil Co. successfully completed No. 5 Carson and this new well was brought in flowing 1,250 bbls. of exceptionally clean 29.8 gravity oil per day from 6,957 feet. In order to remove any conflicting data on this well it might be well to say that the preliminary production test at 6,804 feet proved rather unsatisfactory with the result that the hole was redrilled and deepened to its present depth. This is one of the best wells finished in the Miocene formation in the Dominguez Field up to the present time and tends to indicate that the Miocene will prove of more importance at Dominguez than is generally expected. The Miocene is approximately 2,500 feet thick in other Los Angeles Basin fields and for this reason it is logical to assume that the Miocene at Dominguez will prove equally as thick. The Union and Shell are developing acreage at Dominguez along careful lines and thus the real significance of the Miocene at Dominguez is still problematical.

Mountain View

Federal Judge Paul McCormick clamped down the lid on the Mohawk Oil Co. late this week by issuing an injunction which prevents this company from exceeding its allowable production in any of the fields in which the company is producing. The Mohawk Oil Co. has been consistently exceeding its allowable at Mountain View and this has caused a lot of grief to Umpire Pemberton because of the complaints of operators holding acreage in the same field. There does not appear to be any valid reason why the Mohawk Oil Co. should overproduce as long as Dana Hogan and other operators in this field adhere to curtailment. A number of operators feel that Mountain View is being unduly penalized but this is a matter for the umpire to decide and is by no means a valid reason for operators to overproduce.

Over in the Edison Field of Kern County, the Shell Oil Co. successfully completed No. 1 Community and this new well was brought in pumping 151 bbls. of 19.6 gravity oil per day after the hole had been plugged back from 4,981 feet to 4,415 feet. In the Mount Poso Field, the Shell completed No. 25 Vedder and this new well was brought in pumping 720 bbls. of clean 17.8 gravity oil per day from 1,732 feet. Several additional completions may be expected in this field during the next 30 days as both the Shell and Union are engaged in aggressive but conservative development. Out on the Kern Front, the Associated successfully finished No. 32 in Section 23-28-27, and this new well was finished pumping 201 bbls. of 15.9 gravity oil per day from 2,217 feet.

Inglewood

The Shell finished an excellent new well in the Inglewood Field of Los Angeles Basin early this week when No. 17 Rindge was brought in flowing 2,500 bbls. of clean 31.3 gravity oil per day from 3,291 feet. This new well was finished with a 4¾-inch liner carrying 617 feet of perforated and 2,658 feet of 2½-inch tubing. Operators in the Inglewood Field have been developing their production rather slowly and they are to be complimented on this wise move because crude oil will be worth far more a little later on. The Standard Oil Co. chalked up another new well in the West Coyote Field when No. 121 Murphy-Coyote was brought in flowing 1,365 bbls. of clean 29.9 gravity oil per day from 5,920 feet after the hole had been completed with a 6⅝-inch liner including 797 feet of perforated.

In the Playa Del Rey Field of Los Angeles Basin, the Union Oil Co.'s No. 9 Vidor proved good for 1,378 bbls. of clean 23.4 gravity oil per day upon completion at 6,310 feet. And over in the Santa Fe Springs Field, the Union completed No. 77 Bell, a new well which proved good for 79 bbls. per day on the beam from 4,448 feet after the hole had been finished with a 6⅝-inch liner carrying 386 feet of perforated. The Barnsdall and Rio Grande, which are jointly developing acreage in the Elwood Field of Santa Barbara County successfully completed well No. 10 on tideland permit No. 88 after the well blew in prematurely last week while the crew was making a water shut-off test. This new well is now flowing 1,080 bbls. of clean 33.9 gravity oil per day from 3,616 feet. The Barnsdall and Rio Grande, in completing this new well, have rather definitely proved up the Sespe at Elwood as being exceptionally prolific despite the fact that this horizon has been held back and for this reason might not appear as hot as zones in other fields. In the Santa Barbara Mesa Field, the Interstate Investment Co. completed No. 1 Mesa at 2,119 feet, and this new well was brought in pumping at the rate of 780 bbls. of clean 21.2 gravity oil per day.

Rocky Mountain Area

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for more than a year, is drilling at 325 feet.

Toole County

Fraser & Kluth's No. 1 Severance, C SE NE Section 29-32-2e, South Devon district, is drilling at 830 feet.

Three new locations were reported in the Kevin-Sunburst Field, where there is a marked increase in activity. These were Pfabe & Engleking's No. 8 Seabrook, SE SW SE Section 19-35-2w, rigging up, and the Imperial Oil Co.'s No. 1 Craig, C NE NE Section 19-35-1w, rigging up. Texas Co.'s No. 9 Bruins, C SE Section 9-35-2w, is moving in materials.

A. E. Crumley's No. 5 Shaw, NW SE SW Section 35-36-2w, is drilling at 1,500 feet, and E. B. Coolidge's No. 1 Shaw, SW SE NE Section 35-36-2w, is rigging up. Monopeg Oils, Ltd.'s No. 3 Dipple, SW NW Section 28-35-1w, is fishing at 1,355 feet, and the Mon-Tex Petroleum Co.'s No. 1 fee, SE NW Section 27-34-1w, is rigging up. C. T. Olen's No. 1 Engermoen, SW cor. NW Section 14-35-2w, is rigging up, and E. O. Reikhoff's No. 2 Government, SW cor. NE Section 3-35-3w, is shut down at 150 feet. New Era Fuel Co.'s No. 7 Lorensen, NW NE Section 27-35-2w, is rigging up.

OIL JOBBERS MEETING

The annual convention of the North Dakota division of the Northwest Petroleum Association will be held at the Powers Hotel, Fargo, on June 10 and 11.

Kansas Wildcats

(Continued from Page 52)

Gypsy Oil Co.'s No. 1 Tonn, SW NW SE Sec. 16-25-4w.
Drlg. 1,380 ft.
Kingman Oil Co.'s No. 1 Wetherall, NE NE SW Sec. 20-28-10w.
Rig.

McPHERSON COUNTY

Anderson & Kerr et al's No. 1 Lackey, NE SE NW Sec. 13-21-4w.
Moving in material.
Brosius et al's No. 1 Hanson, NE NE SW Sec. 15-17-2w.
T.D. 1,168 ft.; S.D.
Carey & Miller's No. 1 Husband, SE SE NW Sec. 6-19-3w.
Moving in material.
Palmer Oil Corp.'s No. 1 Swenson, NE NE SW Sec. 11-18-3w.
H.F.W. 3,250 ft.; drlg. 3,340 ft.
Shell Pet. Corp.'s No. 1 Wenger, NE cor. Sec. 2-20-1w.
Viola 3,256-64 ft., T.D.; swbd. 255 bbls. in 10 hrs.; 50% wtr.; acidized; potential production 100 bbls. oil, 620 bbls. of wtr.; P.B. to 3,259 ft.; pumped 80 bbl. of oil and 210 bbls. of wtr. in 7 hrs.
Stafford et al's No. 1 Krehbiel, NW NW SE Sec. 27-21-3w; (O.W.D.D.).
Dry and abd. 2,280 ft.
J. M. Washabaugh et al's, No. 1-A Berg, SW SW NE Sec. 15-20-3w.
Moving in material.

NESS COUNTY

Phillips Pet. Co.'s No. 1 Young, C NW SW Sec. 13-18-21w.
Drlg. 3,964 ft.

OSAGE COUNTY

Jim Edwards' No. 1 Detrick, C NW SE Sec. 21-14-15.
Show oil and gas 783-800 ft.; T.D. 806 ft.

PAWNEE COUNTY

Atlantic Oil Prod. Co.'s No. 1 Siepake, C NE NE Sec. 15-23s-17w.
Siliceous lime 4,372-84 ft.; wtr.; abd.

RENO COUNTY

Bradley's No. 1 Olmsted, SW SW SW Sec. 32-22-7w.
Moving in material.
Foraker et al's No. 1 Hiett, SE SW NE Sec. 34-24-4w.
T.D. 1,285 ft.; S.D.
Gypsy Oil Co.'s No. 1 Tonn, SW NW SE Sec. 16-25-4w.
Drlg. 3,575 ft.
Haynes Bros.' No. 1 Mueller, SE SE NW Sec. 30-24-4w.
Rig.
L. A. Mylius et al's No. 1 Sprowl, NE NW NE Sec. 1-24-5w.
Drlg. 3,425 ft.
Privott Drlg. Co.'s No. 1 Crotts, NE NW NE Sec. 27-24-10w.
Siliceous lime 4,425-30 ft.; H.F.W.; abd.

RICE COUNTY

Anderson & Kerr's No. 1 Wernet, NW NW NW Sec. 24-20-6w.
Location.
Day et al's No. 1 Mason, NW NE NE Sec. 28-21-7w.
(Mystery well); S.D.
Fred Rust et al's No. 1 Brown, NE cor. Sec. 16-21-6w.
Rigged up.
Vickers Pet. Co. et al's No. 1 Gouldner, SE NE NW Sec. 16-18-9w.
K.C. lime 2,879 ft.; 1,940,000 ft. gas at 2,-965-70 ft.; 4,480,000 ft. gas at 2,982 ft.; will kill gas.

ROOKS COUNTY

Murfin et al's No. 1 Washusin, NE NE SE Sec. 19-9-16w.
Rig.
Smith & Ash's (Carman & Hershey) No. 1 Nelson, NW NW NE Sec. 27-10-16w.
S.D. 132 ft.
Trees Oil Co. and Findeiss' No. 1 Johnson, SW SW SE Sec. 26-10-19w.
Fishing 1,145 ft.

RUSH COUNTY

P. Boyle et al's No. 1 Yost, C SW SW Sec. 28-17-18w.
Drlg. 2,195 ft.
Eldorado Ref. Co.'s No. 1 Stang, SE NW Sec. 36-17-17w.
Drlg. 1,665 ft.
Lario O. & G. Co. et al's No. 1 Gillig, NE SE NW Sec. 24-17-17w.
Cellar for Siliceous lime test.
Lario O. & G. Co. and Phillips Pet. Co.'s No. 1 Benbow, NW NE NE Sec. 12-17-19w.
T.D. 3,780 ft.; fishing.
Morgan & Flynn's No. 1 Schlegel, SE SE NW Sec. 24-17-16w.
Siliceous lime 3,628 ft.; good show of 28 gravity oil at 3,637-42 ft.; wtr. at 3,662-75 ft.; LaMotte sand at 3,687 ft.; H.F.W. 3,687-90 ft.; abd.; T.D. 3,740 ft.
Twin Drlg. Co. et al's No. 1 Appl, SW SW NE Sec. 29-17-17w.
Location.

RUSSELL COUNTY

J. Brouk and R. D. Bailey's No. 1 Kleusner, NW SE Sec. 34-15-12w.
S.D. 180 ft.
Buffalo Oil Co.'s No. 1 Kunz, NE NE SW Sec. 19-14-15w.
Cellar.
Hartman & Blair's No. 1 Claussen, SE NE SW Sec. 34-12-14w.
Moving in material.
Hartman & Blair's No. 1 Rexroat, NE NW NW Sec. 21-14-14w.
Rigging up.
Murphin et al's No. 1 Funk, SW cor. Sec. 19-12-12w.
Fishing at 3,040 ft.
Murfin et al's No. 1 Gorham estate, NE NE SE Sec. 29-14-15w.
Cellar.
Pryor and Lockhart's No. 1 Spicer, NE SE Sec. 21-11-15w.
Rigging up.
Reserve Pet. Co.'s No. 1 Moore, NW NW SW Sec. 15-12-12w.
Rigging up.
Ryan Pet. Co.'s No. 1 Newbold, NW SE NE Sec. 26-12-15w.
Drlg. 3,655 ft.
Vernon & Murphin's No. 1 Becker, NE cor. Sec. 32-15-13w.
Drlg. 1,665 ft.
Wakefield & Armer's No. 1 Hall, NE SE SW Sec. 36-14-15w.
Drlg. 2,875 ft.
A. E. Seely et al's No. 1 Herman, SE NW Sec. 27-12-15w.
S.D. 450 ft.
Wolf Creek Oil Co. et al's No. 1 Penn Mutual, SW cor. Sec. 22-15-15w.
U.R. 8-in. csg. to 2,580 ft.

SEDGWICK COUNTY

Allison & Fitzwilliams et al's No. 1 Struthers, NE SW Sec. 34-28-2w.
T.D. 3,295 ft.; C.O.
Magnolia Pet. Co.'s No. 1 Bartholomew, SE SE SW Sec. 30-27-4w.
Chat 3,682 ft.; 9-in. 3,692 ft.; standardizing.
Western Kansas O. & R. Co.'s No. 1 Betzen, SE NE Sec. 17-26-3w.
Viola 4,137 ft.; Simpson 4,144 ft.; coring 4,165 ft.

SCOTT COUNTY

Atlantic Oil Prod. Co.'s No. 1 Mark "A," C SE SE Sec. 28-20-32w.
Drlg. 4,620 ft.

STAFFORD COUNTY

C. B. Davis et al's No. 1 Riley, SE cor. Sec. 19-22-11w.
Drlg. 2,030 ft.
Empire O. & R. Co.'s No. 1 Grove, NE NE NW Sec. 5-22-11w.
Drlg. 750 ft.
Helmerich & Payne's No. 1 Geisler, NW NW SE Sec. 28-22-12w.
Rig.
Lario O. & G. Co.'s No. 1 Tudormorgan, SE SE NW Sec. 23-24-12w.
T.D. 3,628 ft.; acidized; potential production 840 bbls.; completed; K.C. lime 3,-508 feet.

SUMNER COUNTY

Allison & Fitzwilliams et al's No. 1-B Hitchcock, SE NW Sec. 16-30-1w.
Rigged up.
Shell Pet. Corp.'s No. 1 Green, SE SW NW Sec. 3-33-2.
Siliceous lime 3,486-3,507 ft.; H.F.W. 3,-495-3,500 ft.; abd.
Wakefield et al's No. 1 Newton, SE cor. Sec. 21-30-2.
Rig.
D. J. Wilson et al's No. 1 Clark, 1,320 ft. from W and 25 ft. from S line of NW Sec. 15-35-1w.
Drlg. 515 ft.

TREGO COUNTY

Central Commercial's No. 1 Wagg, NW NW SE Sec. 17-13-21w.
T.D. 1,600 ft.; fishing.
Hansa & Lauck and Olson Drlg. Co.'s No. 1 Lang, SE SE NW Sec. 1-14-21w.
Rigged up.
Jenmar Oil Co.'s No. 1 Jones, SE cor. Sec. 20-12-23w.
T.D. 4,060 ft.; moving in rotary.

WOODSON COUNTY

Foster and Schultz's No. 1 Ferguson, C S½ NE SW Sec. 12-26-13.
S.D. 1,400 ft.

Oklahoma Wildcats

(Continued from Page 53)

J. C. Schaffer et al's No. 1 Hammond, SE SE SW Sec. 10-15-4w.
Wilcox 7,039 ft.; cored 7,066-70 ft. in hard white sand; cored 7,079-83 ft.; 7,088-89 ft.; reamed to 7,090 ft.
Stanolind O. & G. Co. et al's No. 1 Nunn, SE NW Sec. 25-15-1.
Drlg. 2,597 ft.

MAJOR COUNTY

Indian Territory Illuminating Oil Co. and Continental Oil Co.'s No. 1 Fairview, C E½ SW SE Sec. 32-22-14w.
Drlg. 2,000 ft.

McCLAIN COUNTY

Anderson & Kerr's No. 1 Newburn, N WSW NE Sec. 24-5-2.
Wilcox sand 2,933 ft.; T.D. 2,945 ft.; hole full of wtr.; abd.

NOBLE COUNTY

Marathon Oil Co.'s No. 1 Gilbert, NE cor. Sec. 34-23-2.
Wilcox sand 4,449 ft.; T.D. 4,480 ft.; flowed 1,793 bbls. in 7 days; may deepen.

OKFUSKEE COUNTY

Amerada Pet. Corp.'s No. 1 Jaynes, NW NW SW Sec. 20-10-10.
Hunton 3,690 ft.; 10,000,000 ft. of gas at 3,704 ft.; Wilcox sand 3,933 ft.; T.D. 4,-025 ft.; 275 ft. wtr. in hole; P.B. to 3,-882 ft.
Olean Pet. Co.'s No. 3 Fish, SE NE NW Sec. 26-10-10 (Wilcox sand test).
Wilcox sand 2,942-61 ft.; flows oil and wtr.; will shoot.
Wilcox O. & G. Co.'s No. 1 Connelly, SE NE SE Sec. 23-14-2e.
Location.

OKLAHOMA COUNTY

Gypsy Oil Co.'s No. 1 Shock, NW SW SW Sec. 2-14-3w.
Wilcox sand 6,367-74 ft. and 6,450 ft.
Sinclair Prairie O. & G. Co.'s No. 1 Corbett, NE NW NE Sec. 17-12-3w.
Drlg. 4,915 ft.
Slick-Urschel Oil Co. et al's No. 1 Owen, SE cor. Sec. 19-13-3w.
Drlg. 5,755 ft.

OSAGE COUNTY

Danciger O. & R. Co.'s No. 1, NE cor. SE Sec. 1-25-6.
Location.

PAWNEE COUNTY

Robinson Drlg. Co.'s No. 1 Cockrell, SE SE NW Sec. 28-23-4.
H.F.W.; T.D. 3,433 ft.; abd.
Trees Oil Co.'s No. 1 Susan Wedd, C SE SE Sec. 27-24-6.
Big lime 2,572 ft.; drlg. 2,650 ft.

PAYNE COUNTY

Marathon Oil Co.'s No. 1 Potts, C SW SW Sec. 27-19-2.
Top Arbuckle 5,085 ft.; T.D. 5,116 ft.; P.B. to 4,550 ft.; set 6-in. 4,489 ft.; drilled plug and got wtr.; P.B. to 4,510 ft.; H. F.W.

PITTSBURG COUNTY

Choctaw Gas Co.'s No. 1 Bunyard, SE SE NE Sec. 18-7-18.
Drlg. 1,305 ft.
McAllister Pet. Corp. et al's No. 1 Chunn, C SE NW Sec. 29-4-14.
T.D. 1,530 ft.; pipe collapsed; S.D.
P. H. Gray et al's No. 1 Lee, NW SE Sec. 12-5-13.
T.D. 1,310 ft.; fishing tools.

PONTOTOC COUNTY

E. M. Blanchard's No. 1 Crabtree, NE SE NE Sec. 27-3-6.
S.D. 2,920 ft.
Philip Boyle's No. 1 McCracken, NE NW NW Sec. 31-5-6.
T.D. 2,170 ft.; set 7-in. csg.; rigging up machine.
Charles E. Carter's No. 1 Wood, NW SW SE Sec. 5-4-3.
S.D. 2,070 ft.
Continental Oil Co.'s No. 1 McCarty, C SW NW Sec. 13-1-7e.
Location.
Crabb-Craw Oil Co.'s No. 1-A Breco, SE NE SW Sec. 3-4-6.
Sand 1,106-18 ft.; pumped 10 bbls. in 24 hrs.; S.D.
W. A. Delaney et al's No. 1 Fulsome, SE NE Sec. 35-4-6.
Location.
Fleetborn Oil Corp.'s No. 1 Oliver, NE NW SE Sec. 21-4-5.
Bromide 1,895 ft.; sand 2,158 ft.; dry; McLish 2,067 ft.; T.D. 2,229 ft.; dry; P.B. to 1,665 ft.
Mudge O. & G. Co.'s No. 1 Clampett, SW NW NW Sec. 10-2-6.
S.D. 915 ft.
Paramount Oil Co.'s No. 1 Graham, SW SE SW Sec. 13-1-7.
500 ft. wtr. in hole from second Bromide sand at 3,288-98 ft.; top lime 3,357 ft.; sand 3,405-08 ft.; sand 3,473-78 ft.; H.F. W.; P.B. to Hunton and shot at 2,480-2,500 ft. and then acidized; dry; S.D.
Gillette & Krooger's No. 1 Duver, NW SE Sec. 36-1n-6e.
S.D. 1,300 ft.
Southern Oil Co.'s No. 1 Walker, NW NW SW Sec. 11-4-6.
Drlg. 1,420 ft.
Leonard Williams et al's No. 1 Breedon, NW cor. Sec. 6-2-5.
Spudded and S.D.

PUSHMATAHA COUNTY

Ungerman et al's No. 1 Misser, SE SW SW Sec. 35-3s-18e.
Deepening from 2,435 ft.; drlg. 3,020 ft.
Wm. Ungerman et al's No. 1 Misser, SE SW SW Sec. 35-3s-18.
T.D. 2,950 ft.; to rerun 6-in. csg.

SEMINOLE COUNTY

L. Cooper's No. 1 Chandler, NE SE SW Sec. 4-5-6.
S.D. 1,780 ft.
Ray Dorris and J. T. Hall's No. 1 Dorris, SE SE SW Sec. 21-10-7.
Sand 520-60 ft.; H.F.W.; S.D. 608 ft.
Verser & Clay et al's No. 1 Thomas, NE SE NW Sec. 1-6-6.
S.D. at 2,302 ft.
Wofford Drlg. Co. et al's No. 1 Abbott, NE cor. Sec. 33-8-7.
Drlg. 375 ft.

WASHITA COUNTY

Okla.-Midwestern Oil Co.'s No. 1 Dock, SW cor. Sec. 21-8-18w.
T.D. 2,430 ft.; lost tools in hole; rig rebuilt; S.D.
Anadarko Basin Oil Co.'s No. 1 Wolf, NE SW Sec. 22-9-17w.
Rigged up and S.D.
L. P. McWhirter's No. 1 fee, SW cor. Sec. 34-8n-19w.
T.D. 300 ft.; S.D. for csg.

SOUTHERN OKLAHOMA
ATOKA COUNTY

Keaton et al's (Brookshire) No. 1 Roland, NW NE NE Sec. 18-2-10.
H.F.W. 3,844 ft.; P.B. 757 ft.; treated with acid.
Clark et al's No. 1 Morrison, SE cor. Sec. 32-1-14.
S.D. 200 ft.
Claro et al's No. 1 Bass, 510 ft. N and 1,170 ft. E of C Sec. 9-1s-14e.
Fishing 1,250 ft.
Malernee et al's No. 1 D. O. K. Land Co., C SE SE Sec. 36-2s-12.
S.D. 3,115 ft.
H. W. Sears et al's No. 1 Downing, SE NW Sec. 17-1s-14.
Moving in tools.

BRYAN COUNTY

C B. Welch's No. 1 Collins, NE NE Sec. 19-1s-8e.
T.D. 570 ft.
Trio Oil Co.'s No. 1 Gilbert, SW NE SW Sec. 25-8s-7.
Oil sand 600-02 ft.; S.D. for csg.

CARTER COUNTY

Bland et al's No. 1 Center, NE cor. Sec. 6-4s-2e.
Rigged up.
Waco Turner's No. 1 Munson, NE NW NE Sec. 35-5s-2w.
T.D. 3,556 ft.; S.D. by flood.
Carter Oil Co.'s No. 1 Carter-Williams, SW NE SW Sec. 27-2s-3w (7,000-ft. test).
Viola 5,740 ft.; drlg. 5,865 ft.
Paul Robb's No. 1 Burton, 660 ft. N and 195 ft. W of C Sec. 31-1s-2w.
Location.

CHOCTAW COUNTY

Burns et al's No. 1 Hallum, NE NW NW Sec. 4-7s-20.
Rigging up.

COMANCHE COUNTY

H. W. Baker's No. 1 Miller, SE SW SE NE Sec. 22-2-13w.
S.D. 120 ft.
Oscar Jones' No. 1-A Sheets, NE SW Sec. 26-3-10w.
Machine.
F. F. Stevens' No. 1 Green, SE SW Sec. 2-1-13w.
S.D. 1,600 ft.; (corrected depth).

HARMON COUNTY

Jud Leath et al's No. 1 McConnell, NW cor. Sec. 22-8-24w.
Spudded and S.D.
J. J. Mathis' No. 1 Keith, SE NW SW Sec. 12-5-26w.
Location.

GREER COUNTY

D. E. Whatley et al's No. 1 Hamilton, NW SE Sec. 25-4-24w.
Cellar.

JACKSON COUNTY

Associated Oil Co.'s No. 1 Harrell, NE NE SE Sec. 13-1-21w.
T.D. 1,240 ft.; lost hole; skidded machine; drlg. 320 ft.
J. G. Buel et al's No. 1 Kizziar, SE SE NE Sec. 2-3n-22w.
S.D. 2,035 ft.
Burke-Greis Oil Co.'s No. 1 Millibrant, SW NW SW Sec. 31-3-19w.
Drlg. 528 ft.
Burk Royalty Co.'s No. 1 Gore, SE NW SE Sec. 3-1s-20w.
Dry and abd. 1,909 ft.
Gypsy Oil Co.'s No. 1 Boucher, NW SW SW Sec. 32-1-19w.
Drlg. lime 2,002 ft.
Gypsy Oil Co.'s No. 1 Stokes, SE NW SW Sec. 11-1-20w.
Lime 1,709-11 ft.; T.D. 1,722 ft.; S.D.
Loper et al's No. 1 Conrad, NE cor. Sec. 35-1s-19w.
Drlg. 1,505 ft.
Marshall & Burnham's No. 1 Hess, NE SW NE Sec. 27-1s-20w.
Drlg. 1,160 ft.
Palo Duro Oil Co.'s No. 1 Ealum, SW SW SE Sec. 16-2-21w.
Drlg. 1,080 ft.
Robberson & Suppes' No. 1 Walker, SW cor. Sec. 19-4-20w.
Drlg. 540 ft.
Selby O. & G. Co.'s No. 1 Mack, NW cor. NW SW Sec. 5-2n-20w.
Drlg. 1,065 ft.
Triangle Oil Co.'s No. 1 Fox, E½ W½ NW Sec. 11-3n-20w.
T.D. 600 ft.; fishing tools.
Whatley & Whatley's No. 1 Holt, NW SW SE Sec. 20-1n-20w.
S.D. 1,430 ft.

JEFFERSON COUNTY

Gypsy Oil Co.'s No. 1 James, SW SE SE Sec. 30-5s-6w.
Drlg. 1,730 ft.
Ben H. Levy et al's No. 1 Ryan, NW cor. Sec. 16-6s-6w.
Moving in tools; rig up.

JOHNSTON COUNTY

W. A. Delaney et al's No. 1 Diamond, NW NE SE Sec. 5-1s-8.
Drlg. 2,100 ft.
Schermerhorn Oil Co.'s No. 1 Rich, SW SE SE Sec. 35-4s-4e.
Drlg. sandy lime 404 ft.

LOVE COUNTY

Amerada and Stanolind's No. 1 W. & D., NW SE SE Sec. 27-6s-2e.
T.D. 1,872 ft.; crooked hole.

McCURTAIN COUNTY

J. V. Scrivener et al's No. 1, NE SW SW Sec. 24-6s-21.
S.D. 970 ft.

MARSHALL COUNTY

Jess Cook et al's No. 1 May, NE NW Sec. 12-8s-5.
Drlg. 75 ft.
Paul Robb's No. 1 Vittetoe, C NE SE Sec. 11-5s-4e.
Top Sylvan shale 5,405 ft.; T.D. 5,461 ft.; S.D.

MURRAY COUNTY

Equitable O. & G. Co.'s No. 1 Ferguson, NE NE SW Sec. 36-1s-3.
Viola 464 ft.; drlg. 505 ft.

STEPHENS COUNTY

Wm. Angle et al's No. 1 Cooper, NE NW NW Sec. 23-2-7w.
T.D. 3,406 ft.; R.U. rotary.
Geo. Pace et al's No. 1 Daily, NE NE NE Sec. 26-1n-8w.
Moving in.

TILLMAN COUNTY

J. G. Buell et al's No. 1 Haught, SE NE Sec. 22-1-18w.
Drlg. 828 ft.
Cockburn & Boose's No. 1-A Nichols, SE cor. Sec. 28-2s-19w.
Drlg. 1,670 ft.
Rock Island Ref. Co.'s No. 1 Lynch, C SE SW Sec. 35-1s-16w.
Drlg. 240 ft.

La.-Ark. Wildcats

(Continued from Page 35)

S.D. 120 ft.
Ben F. Smith et al's No. 1 Porter, 330 ft. N and E. SW cor. NW Sec. 25-12-13.
Set 10-in. 71 ft.; drlg. 320 ft.
Ed Telford et al's No. 1 Thigpen, 400 ft. S, and 308 ft. W, NE cor. SW NE Sec. 23-13-13.
Set 7-in. 1,624 ft.

EAST CARROLL PARISH

Century Oil & Drlg. Co.'s No. 1 Olive Dell, 660 ft. S, 300 ft. W, NE cor. Sec. 56-21-21e.
Set 10-in. 280 ft.
O. G. Collins' No. 1 H. L. Hunt, approx. center of Sec. 26-22-13e.
Set 10-in. 260 ft.; drlg. 550 ft.

GRANT PARISH

C. & S. Oil Corp.'s No. 1 Swope, Sec. 17-19-1e.
Dry and abd. 1,618 ft.

MOREHOUSE PARISH

Alex Rice, tr.'s No. 1 Myers, Sec. 15-22-7.
Coring 2,935 ft.
Zeiger & Bacon's No. 2 Crossett Lbr. Co., 2,870 ft. N, 505 ft. E, SE cor. SE SW of Sec. 36, in Sec. 41.
S.D. 50 ft.

OUACHITA PARISH

Pioneer Gas Co.'s No. 1 Filhoil, 2,436 ft. N, 307 ft. W, common cor. Sec. 11-18-4e.
Set 4½-in. 2,178 ft.

NATCHITOCHES PARISH

Clyde Crichton's No. 1 Friedman Est., 406 ft. N, 428 ft. E, SW cor. Sec. 52-7-6.
Arranging test, 2,243 ft.

Ab Jones' No. 1 Brown Lbr. Co., 400 ft. N, 330 ft. W, SE cor. Sec. 5-10-10.
S.D. 1,033 ft.

RED RIVER PARISH

Sterling O. & R. Co.'s No. 1 Long Bell, Sec. 19-13-9.
S.D. 2,946 ft.

J. S. Tuffree's No. 1 Wilkinson, 1,320 ft. S and W, NE cor. Sec. 11-12-11.
S.D. 1,395 ft.

SABINE PARISH

G. H. Collins' No. 1-C Cranford, 330 ft. S and E, NW cor. SW NW Sec. 28-9-13.
Set 10-in. 100 ft.

M. T. Hines' No. 1 J. B. Hill, SW NE Sec. 4-6-11.
Reaming to bottom 2,270 ft.

Laurel Pet. Co.'s No. 1 Long Bell Lbr. Co., 330 ft. N and E, SW cor. Sec. 14-8-14.
S.D.; high wtr.; 1,815 ft.

Jack Lent's No. 1 Williams, Sec. 13-7-11.
S.D. 950 ft.

H. H. Morris, trustee's No. 1 Henderson, 330 ft. S and W, NE cor. SW NE Sec. 29-9-13.
Set 10-in. 84 ft.; drlg. 685 ft.

Strickland et al's No. 1 Whitney Corp., Sec. 32-10-12.
Recmt. 8-in.; T.D. 1,590 ft.

UNION PARISH

Carbons Consolidated's No. 9 fee, 660 ft. N, 990 ft. E, SW cor. NW Sec. 17-21-3e.
Set 6-in. 2,100 ft.

Southern Carbon Co.'s No. 67 fee, 1,980 ft S, 750 ft. E, NW cor. Sec. 5-20-4e.
Comp.; 12,000,000 ft. gas, 2,140 ft.

Southern Prod. Co.'s No. 1 Clark, 500 ft. N and W, SE cor. NW NW Sec. 17-23-1e.
Set 10-in. 46 ft.

WEBSTER PARISH

Virgil Likens' No. 1 E. L. Stewart, 1,020 ft. E, 600 ft. S of NW cor. Sec. 23-18-10.
Drlg. 1,250 ft.

ARKANSAS

ARKANSAS COUNTY

Grand Prairie Realty Co.'s No. 2 Fischer, 412 ft. S, 12 ft. W, NE cor. NW NW Sec. 6-6-4w.
Rigging up.

ASHLEY COUNTY

Glenn E. McFaddin et al's No. 1 Boreine Farms, 660 ft. S and W, NE cor. Sec. 1-18-8.
S.D. 2,800 ft.

COLUMBIA COUNTY

Gold Oil Corp.'s No. 1 Weffer, 330 ft. N and E, SW cor. SE NW Sec. 24-15-20.
S.W. and abd. 1,465 ft.

Southern States Gas Co.'s No. 1 Piney Woods Lbr. Co., 330 ft. N and E, SW cor. NE NW Sec. 10-20-22.
S.D. 960 ft.

O. F. Whittaker's No. 1 F. Hall, 330 ft. N and W, SE cor. SE NW Sec. 11-15-20.
Arranging to resume drlg. at 1,612 ft.

GRANT COUNTY

Neill & Winter's No. 1 Cooper, C S½ SW SE Sec. 26-6-15.
Set 10-in. 100 ft.; coring 1,872 ft.

HEMPSTEAD COUNTY

A. H. Bagnelle's No. 1 Trattner & Rhinehart, Sec. 2-13-26.
S.D. 1,992 ft.

F. W. Martin's No. 2 Lafferty, C NW Sec. 17-14-24.
Rigging up.

LAFAYETTE COUNTY

Kamon & Neely's No. 1 Cockran, NW cor. SE SW Sec. 26-19-25.
Coring 3,463 ft.

Larry Romine's No. 1 Nolte, NE cor. NE NW Sec. 11-19-26.
Dry and abd. 3,516 ft.

Riggs Bros.' No. 1 Dubose, SE cor. SW NW Sec. 35-15-24.
S.D. 2,600 ft.

MILLER COUNTY

M. D. K. Fitzwater's No. 1 E. H. Beck, 150 ft. N and E, SW cor. NW SW Sec. 34-15-26.
Set 10-in. 100 ft.; drlg. 1,490 ft.

Fitzwater et al's No. 1 Norson, SW cor. SE SW Sec. 20-15-27.
S.D. 3,177 ft.

King Oil Corp.'s No. 1 C. H. Schroder, 200 ft. N, 330 ft. E, SW cor. SW NE Sec. 24-14-28.
S.D. 3,167 ft.

King Oil Corp.'s No. 1 Anderson, 350 ft. E, 200 ft. S, NE cor. SW NE Sec. 16-14-27.
Coring 2,480 ft.

Magnolia Pet. Co.'s No. 8 Olivet, 336 ft. S and W, NE cor. NW NW Sec. 3-16-26.
Set 12½-in. 235 ft.

Frank Roe et al's No. 1 Frost Est., 150 ft. N and W, SE cor. SE SW Sec. 8-15-26.
Set 10-in. 120 ft.

Lee Timberlake's No. 1 Frost Est., 330 ft. N and E, SW cor. SW SE Sec. 27-15-26.
S.D. 3,100 ft.

NEVADA COUNTY

Carnett et al's No. 1 Floyd Munin, C SW Sec. 16-14-22.
S.D. 50 ft.

OUACHITA COUNTY

F. A. Book et al's No. 1 Arnold, Sec. 24-15-16.
S.D. 2,032 ft.

Snow Black Pet. Co.'s No. 1 O. F. Wyman, NW SW Sec. 36-11-16.
Set 10-in. 101 ft.

Chas. Steele et al's No. 1 Myar Est., 330 ft. N and W, SE cor. SW SE Sec. 16-13-18.
Coring 1,298 ft.

SEVIER COUNTY

Pendleton & Vaughn's No. 1 fee, 1,160 ft. S, 330 ft. E, NW cor. SE.
Drlg. 50 ft.

Pendleton & Vaughn's No. 1 Harrison Est., 265 ft. S, 30 ft. W, CEL Sec. 34-9-30.
P.B. to 1,155 ft. to test.

UNION COUNTY

J. E. Crosbie, Inc.'s No. 1 Warren, 330 ft. S and W, NE cor. SW SW Sec. 10-17-14.
Comp.; flowing 250 bbls., 3,338 ft.

Gardy Drlg. Co.'s No. 1 Craig, Sec. 35-17-15.
S.D.; W.O. 2,211 ft.

Gulf Ref. Co.'s No. 49 L. Werner, 4,620 ft. N, 60 ft. E, SW cor. Sec. 5-16-16.
Drlg. 6,192 ft.

H. L. Hunt's No. 15 E. F. Gregory, 330 ft. N and W, SE cor. Sec. 10-17-14.
P.B. to 3,478 ft.

H. L. Hunt's No. 18 E. F. Gregory, 330 ft. N and E, SW cor. Sec. 11-17-14.
Derrick.

Mrs. R. K. Jones et al's No. 1 Davis, 330 ft. N and W, SE cor. NW NW Sec. 28-16-14.
Coring 3,126 ft.

Marine Oil Co.'s No. 3-A Union Sawmill, 330 ft. S and W, NE cor. SE SE Sec. 3-18-13.
Rigging up.

Joe Modisette et al's No. 1 D. S. Sturdevant, 330 ft. N and W, SE cor. Sec. 6-18-13.
Drlg. 4,016 ft.

C. E. Murdock's No. 1 Pumphrey, C SW NW NE Sec. 11-17-14.
Derrick.

Earl Patterson's No. 1 C. L. Smith, 1,130 ft. S, 550 ft. E, NW cor. Sec. 29-17-14.
Comp.; 100 bbls., 2,902 ft.

MISSISSIPPI

AMITE COUNTY

Mineral Resources, Inc.'s No. 1 Anderson, C NE NW Sec. 14-3n-3e.
S.D. 550 ft.

BOLIVAR COUNTY

White & Jones' No. 1 Ballou, SE SE NW Sec. 17-24n-7w.
S.D. 20 ft.

CLARKE COUNTY

L. Beckwith et al's No. 1 Long Bell Lbr. Co., 538 ft. S, 125 ft. W of C Sec. 10-2n-16e.
T.A.; lack of funds.

Clarke County Oil Co.'s No. 1 Dora Butler, C SW SW Sec. 15-2n-16e.
Set 10-in. 63 ft.

HARRISON COUNTY

Big Ridge Oil Co.'s No. 1 Hinzin, NE Sec. 13-7s-10w.
S.D.; W.O. 1,100 ft.

HINDS COUNTY

F. H. Robertson et al's No. 1 Martin, 660 ft. E, 330 ft. N, SW cor. N½ SW NE Sec. 26-6n-1e.
Set 7-in. 2,472 ft.

Bob Weaver's No. 1 T. Russell & Oparka, C NW NW NE Sec. 26-6n-1e.
Set 8-in. 760 ft.; set 5-in. 2,427 ft.

JONES COUNTY

Snow-Black Pet. Co.'s No. 1 Fox, 400 ft. N, 750 ft. W, SE cor. SE SW Sec. 30-7n-12w.
Dry and abd. 4,300 ft.

LAUDERDALE COUNTY

Bob Dalton's No. 1 Bounds, Sec. 34-7n-15e.
S.D.; W.O. 1,600 ft.

MONROE COUNTY

P. J. McAlpine's No. 1 Frank Rye, Sec. 15-15s-17w.
T.A. 2,931 ft.

P. J. McAlpine's No. 1 Crook, 1,090 ft. S, 90 ft. W, NE cor. Sec. 15-13s-13w.
S.D. 2,500 ft.

RANKIN COUNTY

Cleve Love et al's No. 1 Boehle, 150 ft. S and W, NE cor. NW NE Sec. 18-5n-2e.
Comp.; 35,600,000 ft. gas, 2,463 ft.

SIMPSON COUNTY

Berry Corp.'s No. 2 R. T. Berry, Sec. 33-2n-4e.
O.W.D.D.; S.D. for fuel at 2,510 ft.

WALTHALL COUNTY

Mutual O. & G. Co.'s No. 1 Boyd, SW cor. SW SE Sec. 24-2n-9e.
Partly rigged up and S.D.

WARREN COUNTY

H. W. Elliott et al's No. 2 R. L. Parker, 780 ft. E, 1,570 ft. S, NW cor. Sec. 14-14n-1e.
S.D.; high wtr. 1,600 ft.

WASHINGTON COUNTY

Perkins & Dees' No. 1 Lee, 1,500 ft. E, 500 ft. N, SW cor. Sec. 33-16n-3w.
Drlg. 2,006 ft.

WINSTON COUNTY

Jack Vale et al's No. 1 Moody, 713 ft. N, 667 ft. E, SW cor. NW SW Sec. 3-13n-14e.
S.D.; W.O. 1,320 ft.

La.-Ark. Proven Fields

NORTH LOUISIANA

CADDO—BODESSA

United Gas Public Service Co.'s No. 2 Caddo Levee Board, 1,126 ft. S, 25 ft. E, NW cor. Sec. 26-23-16.
Rigging up.

United Gas Public Service Co.'s No. 1 D. F. Barr, 1,320 ft. N, 1,551 ft. W, SE cor. Sec. 29-23-16.
Rigging up.

United Gas Public Service Co.'s No. 1 I. L. Young, C E½ SE Sec. 21-23-16.
Drlg. 4,334 ft.

SABINE PARISH—ZWOLLE

Alexander & Crane's No. 1 Fogman, SE cor. N½ SW NE Sec. 18-7-11.
Set 6-in. 2,373 ft.

Ivan A. Allen's No. 1 La. Long Leaf, 330 ft. N and W, SE cor. NW SE Sec. 12-7-11.
S.D. 2,120 ft.

Hunter Co.'s No. 15 Sabine Lbr., 2,640 ft. E, 1,320 ft. N, SW cor. Sec. 1-7-12.
W.O.S.R. 2,700 ft.

H. C. Maulding's No. 1 Davis, 350 ft. N and W, SE cor. NE NE Sec. 2-7-11.
Rigging up.

K. C. Peterson et al's No. 1 Bowman-Hicks, 330 ft. S and E, NW cor. SW NW Sec. 2-7-9.
Derrick down.

Tex.-La.-Ark. Oil Co.'s No. 1 Pickering Lbr. Co., Sec. 3-3-12.
S.D. 2,742 ft.

EAST TEXAS (BORDER COUNTIES)

HARRISON COUNTY

R. C. Payne et al's No. 1 Lowery, H. D. Spain Sur.
P.B. to 3,524 ft.

MARION COUNTY

Ed S. Holman's No. 1 Henderson, R. Bennington Sur.
P.B. to 2,443 ft.

PANOLA COUNTY

R. A. Graddy's No. 1 M. J. McCormick, J. McAdams Sur.
Moving in rig.

George Hudson et al's No. 1 J. F. Nail, C. McGeary Sur.
Set 8-in. 40 ft.; fishing for core bbl. at 2,345 ft.

Geo. Le Grand's No. 1 P. J. Wardleigh, A. Thompson Sur.
Set 10-in. 62 ft.

R. W. Price's No. 1 Crawford, J. A. Williams Sur.
Set 10-in. 64 ft.

Fred Stovall Drlg. Co.'s No. 1 H. D. Ivey, P. Martin H.R.S.
S.D. for csg. 1,980 ft.

SHELBY COUNTY

Cliff Stoval's No. 1 Pickering Lbr. Co., C. H. Patterson Sur.
S.D.; rig repair. 1,485 ft.

ALABAMA

COVINGTON COUNTY

Geometer Prod. Corp.'s No. 1 Culbreath, SW cor. SW NE Sec. 8-2n-14e.
S.D.; repairing rig, 5,600 ft.

HOUSTON COUNTY

Rice O. & G. Co.'s No. 1 Oakley est., SE cor. NW SW Sec. 9-3n-29e.
Drlg. 2,776 ft.

LAMAR COUNTY

DeSoto O. & G. Corp.'s No. 1 Gardner, Sec. 22-15s-16w.
Drlg. 4,259 ft.

WALTON COUNTY—FLORIDA

Geometer Oil Corp.'s No. 2 Walton Land & Timber Co., Sec. 10-1s-19w.
Drlg. core tests on block; R.U and S.D.

Gulf Coast Wildcats

(Continued from Page 51)

E line, center N and S Lot 18, H.T.&B. Sur. No. 23.
Spudded and S.D.

OLD OCEAN—BRAZORIA COUNTY

Harrison & Abercrombie's No. 2 Bernard River, 1,000 ft. N, 54 deg. W, 400 ft. S, 36 deg. W of No. 1, Charles Breen Sur.
Rig up.

PLEDGER—BRAZORIA COUNTY

Humble O. & R. Co.'s No. 1 T. L. Smith, 1,283 ft. NE from W cor. of 88.86-ac. lease, thence 887 ft. SE at R/A. D. McNeel Sur.
Top sand 5,691 ft.; 7-in. csg. 6,550 ft.; T.D. 6,670 ft.

PORT LAVACA—CALHOUN COUNTY

Adrian Moore et al's No. 1 O. F. McMaster, 320 ft. out of SE cor. of 80-ac. tract, M. Sanches Sur.
Drlg. shale 2,000 ft.

Halliburton Oil Prod. Co.'s No. 1 Bruton 660 ft. due E of Steinberger Pet. Co.'s No. 1 Ishofner, M. Sanches Sur.
T.D. 6,262 ft.; prepare to test.

Texas Co.'s No. 1 Geryk, 1,400 ft. W from E line, 470 ft. N from S line of lease, Lot 7, Ysidro Benavides Sur.
Drlg. shale 3,336 ft.

Texas Co.'s No. 1 Kupatt, 466 ft. E from S line of lease, Lot 17, Ysidro Benavides Sur.
Derrick.

Texas Co.'s No. 1 Shofner, SE offset to Steinberger's No. 1 Shofner, M. Sanches Sur.
10-in. csg. 1,311 ft.; drlg. shale 3,650 ft.

Texas Co.'s No. 1 I. Biardone, 1,650 ft. from E line and 1,350 ft. from N line of lease, Samuel Shupe Sur.
Coring shale 7,185 ft.

Texas Co.'s No. 1 R. Duelberg, 1,565 ft. NE along S line from SW cor. of lease and 330 ft. N at R/A. M. Sanches Sur.
P.B. 6,050 ft.

Texas Co.'s No. 1 J. A. Marten, 1,700 ft. SW along N line from NE cor. and 1,400 ft. at R/A in SE direction, Florentina Garcia League Sur.
Drlg. shale 6,445 ft.

Tulane Gordon's No. 1 W. A. Shofner, 339.5 ft. from N line, 295 ft. from E line of block, D. Tilley Addn., M. Sanches Sur.
Location.

ANAHUAC—CHAMBERS COUNTY

Humble O. & R. Co.'s No. 2 Broussard, 2,332 ft. E of W line, 2,332 ft. N of S line of Sec. 63, H.&T.C. Sur.
Location.

Humble O. & R. Co.'s No. 3 Broussard, 1,399 ft. out of NW cor. of Sec. 63, H.&T. C. Sur.
Location.

Humble O. & R. Co.'s No. 2 Clark, 2,332 ft. W of E line, 2,332 ft. N of S line of Sec. 57, H.&T.C. Sur.
Building derrick.

Humble O. & R. Co.'s No. 3 Middleton, 2,332 ft. N of S line, 2,332 ft. E of W line of Sec. 58, H.&T.C. Sur.
10¾-in. csg. 2,102 ft.; drlg. shale 2,110 ft.

Humble O. & R. Co.'s No. 2 Middleton, 466 ft. out of NE cor. of H.&T.C. Sur., Sec. 64.
Drlg. shale 5,330 ft.

BARBERS HILL—CHAMBERS COUNTY

Mills Bennett Prod. Co.'s No. 2-C Barber, 93 ft. N of No. 1, 100 ft. E of W line.
Drlg. sandy shale and lime 4,228 ft.

Sun Oil Co.'s No. 7 Higgins, 50 ft. S of N line, 50 ft. W of E line.
Top rock 2,784 ft.; drlg. rock 2,804 ft.

Sun Oil Co.'s No. 11 Chambers County, half way between and in line with Nos. 9 and 10.
Drlg. salt 2,658 ft.

Texas Gulf Prod. Co.'s No. 6 Wilburn, 50 ft. N of S line, 25 ft. E of W line, William Hodges Sur.
T.D. 2,424 ft.; running csg.

Texas Gulf Prod. Co.'s No. 3 Fitz, 450 ft. E of W line, 75 ft. N of S line.
Drlg. sand and shale 4,379 ft.

Texas Gulf Prod. Co.'s No. 13-A Kirby, 813 ft. N of S line, 85 ft. W of E line, W of Humble O. & R. Co.'s No. 8-B Kirby.
T.D. 5,265 ft.; 9⅝-in. csg. cmtd.

Texas Gulf Prod. Co.'s No. 2 Fitz-Meadows, 281 ft. S of N line, 50 ft. W of E line of T. S. Fitz lot.
Drlg. sand and shale 4,563 ft.

Yount Lee Oil Co.'s No. 28 Chambers County, 50 ft. N of S line, direct offset to Sun's No. 10 Chambers County, Wm. Bloodgood Sur.
T.D. 4,557 ft.; I.P. 435 bbls. through ¼-in. choke; tubing pressure 445 lbs.

Yount Lee Oil Co.'s No. 30 Chambers County School Land, 50 ft. N of S line, direct offset to Sun Oil Co.'s No. 11.
Rig up.

LOST LAKE—CHAMBERS COUNTY

Pure Oil Co.'s No. 19 Mays, 400 ft. SE of No. 11, 400 ft. SW of No. 14, E. H. R. Wallace Sur.
7-in. csg.; T.D. 2,460 ft.

BOLING—FORT BEND COUNTY

Irwin Larsen et al's No. 1 J. R. Farmer, 100 ft. NW and 100 ft. SW from E cor. of 125-ac. lease, James Scott Sur.
Location.

Midland Oil Co.'s No. 1 P. F. Coulter, 150 ft. from S line, 4,174 ft. from W line of 100-ac. tract, Miller League No. 2.
Set screen; T.D. 4,186 ft.

Navarro Oil Co.'s No. 2 H. R. Farmer, 363 ft. from SW line and 160 ft. from SE line of Humble O. & R. Co.'s lease, James Scott Sur.
T.D. 4,058 ft.; P.B. 3,870 ft.; prepare to test.

Sun Oil Co.'s No. 1 H. R. Farmer, 103 ft. from N line, 359.2 ft. from W line of 100-ac. tract, James Scott League Sur.
Derrick.

Yew Development Co.'s No. 1 C. E. Farmer, 600 ft. S and 325 ft. W of the NE cor. of 50-ac. lease, James Scott Sur.
Rig up.

ORCHARD—FORT BEND COUNTY

Gulf Prod. Co.'s No. 42 Moore, 345 ft. S, 305 ft. W of SW cor. of E.M.G. Co. Sur.
T.D. 2,567 ft.; I.P. 47 bbls. per hr. through ¼-in. choke.

Gulf Prod. Co.'s No. 43 Moore, 350 ft. E along S line of SW cor. of E.M.&G. Co. Sur. and 740 ft. N at R/A to said line of lease, 350 ft. E of No. 3 Moore.
Drlg. hard shale 5,311 ft.

THOMPSON—FORT BEND COUNTY

Gulf Prod. Co.'s No. 9 Hammerstram, S. Kennedy Sur
Location.

Gulf Prod. Co.'s No. 10 Hammerstram, S. Kennedy Sur.
Drlg. shale and boulders 3,956 ft.

Gulf Prod. Co.'s No. 11 Gubbels.
Drlg. sand 5,300 ft.

Humble O. & R. Co.'s No. 25-A Booth.
Derrick.

HIGH ISLAND—GALVESTON COUNTY

Yount Lee Oil Co.'s No. 47 Cade, Fitzsimmons Sur.
Rig up.

Yount Lee Oil Co.'s No. 2 Louisafot, 150 ft. due S of No. 1, M. Dunman Sur.
Derrick.

Yount Lee Oil Co.'s No. 2-A Taylor, 85 ft. W of No. 1, A. Dunman Sur.
Derrick.

Yount Lee Oil Co.'s No. 46 Cade, 424 ft. SW of No. 35, 424 ft. NW of No. 36, Fitzsimmons Sur.
Drlg. shale 3,920 ft.

Yount Lee Oil Co.'s No. 1 Taylor, D. Dunman Sur., 125 ft. due E of No. 1-A Gordon-Viterbo.
Drlg. sandy shale 2,527 ft.

Yount Lee Oil Co.'s No. 1 Acon & Hughes, 85 ft. E of No. 1 Pabst, on a 3.82-ac. tract, M. Dunman Sur.
Drlg. shale 3,420 ft.

Yount Lee Oil Co.'s No. 1-A Lockhart, 85 ft. W of No. 1 Pabste, on a 5.28-ac. tract, M. Dunman Sur.
T.D. 5,068 ft.; 7-in. csg. 5,028 ft.; testing.

DICKINSON—GALVESTON COUNTY

Humble O. & R. Co.'s No. 1 Bayou Development Co., 375 ft. S of N line and midway between E and W lines of Lot No. 7, John Sellers Sur.
Location.

Humble O. & R. Co.'s No. 2-B Maco Stewart, 400 ft. from N line of Bayou, 610 ft. from No. 1-B, John Sellers Sur.
Rig up.

Humble O. & R. Co.'s No. 1 E. E. Anderson, 375 ft. N of S line, and midway between E and W lines of Lot No. 4, John Sellers Sur.
Location.

Humble O. & R. Co.'s No. 1 Fugger, 333 ft. from W line, 522 ft. from N line of lease, J. S. Sherman Sur.
Drlg. shale 7,913 ft.

Humble O. & R. Co.'s No. 1 Townes, 440 ft. E of W line, 550 ft. N of N bank of Bayou, B.B.B.&C. Sur.
10¾-in. csg. 1,927 ft.

Humble O. & R. Co.'s No. 2-A Maco Stewart, 3,324 ft. S along E line of S bank of Bayou and 566 ft. W of E line at R/A John Sellers Sur.
Drlg. shale 6,604 ft.

Stanolind O. & G. Co.'s No. 1 State, 347 varas S of Humble O. & R. Co.'s No. 1 Jones.
Spudded and S.D.

Turnbull & Irwin's No. 1 J. Piazza, 460 ft. W and 250 ft. S of Humble O. & R. Co.'s No. 1 Jones, J. S. Sherman Sur.
T.D. 8,478 ft.; 7-in. csg. 8,256 ft.

ARRIOLA—HARDIN COUNTY

Houston Oil Co.'s No. 8 fee, Arriola Sur.
Drlg. shale 3,511 ft.

Houston Oil Co.'s No. 6-X fee, 400 ft. SE of No. 4-X, 500 ft. SE of No. 5-X fee.
Coring shale 4,012 ft.

Republic Prod. Co.'s No. 12 fee, 2,599 ft. S of N line, 474 ft. E of W line, of E. Arriola Sur.
Rig up.

BATSON—HARDIN COUNTY

Danciger Oil & Refining Co.'s No. 1 Tom Wynne, 250 ft. S, 150 ft. W of Deering's No. 1 Cruse.
Drlg. shale 4,320 ft.

John Deering's No. 1 Conselman, 2,810 ft. E along N line, from NW cor. of H. Numm Sur. and 35 ft. at R/A, W. Donoho Sur.
Drlg. shale 2,400 ft.
Sterling O. & R. Co.'s No. 1 Doucette, 565 ft. N from NE cor. of Nunn tract thence 565 ft. E at R/A, Wm. Donoho Sur.
T.D. 5,914 ft.; P.B. 5,678 ft.; perforated csg. from 5,600-10 ft. and from 5,640-60 ft.; swbd. dry; S.D.
John Deering's No. 1 Bullock, 1,000 ft. N, 17 ft. E of middle line of 30-ac. tract, Bullock tract, Dondo Sur.
Coring sand and shale 6,294 ft.
John Deering's No. 2 Cruse, 200 ft. E and 50 ft. S of No. 1 Cruse, W. Donaho Sur.
Rig up.

SARATOGA—HARDIN COUNTY

Rio Bravo Oil Co.'s No. 11-N Jordit, 200 ft. due W of No. 11-R Jordit.
Clearing location.

SOUR LAKE—HARDIN COUNTY

Arlis Pet. Co.'s No. 1 Harkan and Langham. Dig pits.
Texas Co.'s No. 320 fee, S 89 deg., W, 117 ft. from No. 274.
T.D. 1,957 ft.; P.B. 1,736 ft.; swbng. and flowing 30 bbls. per day by heads.

HUMBLE—HARRIS COUNTY

Sun Oil Co.'s No. 84 River, 300 ft. E of No. 61, in 292-ac. tract, Robert Dunman Sur.
Drlg. shale 1,310 ft.

PIERCE JUNCTION—HARRIS COUNTY

J. S. Abercrombie's No. 5 John Ritter, 259 ft. SW of No. 4, 1,047 ft. NE along SE line out of SW cor. of 160-ac. tract, thence 93 ft. NW at R/A, Sec. 51, J. Hamilton Sur.
Location.
Gulf Prod. Co.'s No. 40 E. R. Taylor, 39.5 ft. along E line of E. R. Taylor's 560-ac. tract from SW cor., south offset to Hamil & Smith's No. 1 Howe.
Derrick.
Gulf Prod. Co.'s No. 39 Taylor, 1,729 ft. S, 75 ft. W of NE cor. of J. Hampton Sur. T.D. 6,263 ft.; I.P. 618 bbls. per day through ¼-in. choke; tubing pressure 1,-350 lbs.
Hamil & Smith's No. 1 C. W. Mowery, 50 ft. out of NE cor. of 600-ac. tract, Sec. 53, J. Hamilton Sur.
12¾-in. csg. 1,218 ft.; drlg sandy lime 2,110 ft.
Navarro Oil Co.'s No. 1 Dooley, J. Hamilton Sur.
7-in. csg. 5,666 ft.; T.D. 6,160 ft.; fishing.
Rio Bravo Oil Co.'s No. 27-A Settegast, 377 ft. S, 553 ft. W of NE cor. of Settegast "A" tract, James Hamilton Sur.
Standing 5,526 ft.
Rio Bravo Oil Corp.'s No. 9-A Settegast, 1,575 ft. N line, 350 ft. E line NE cor. "A" lease, J. A. Kopman Sur.
T.D. 5,411 ft.; standing.

MYRAWA—HARRIS COUNTY

Alpha Pet. Co.'s No. 1 Waggenhausen, C of E½ Lot 10, F. J. Rothas Sur.
Drlg. shale 2,000 ft.
Flannigan Drlg. Corp.'s No. 1 Goldman, J. Randon Sur.
Drlg. shale 4,180 ft.
Sterling O. & R. Co.'s No. 1 Waggoner, F. J. Rothas Sur., W½ Blk. 10.
5¼-in. csg. 4,380 ft.; T.D. 4,487 ft.; I.P. 45 bbls. per hr. through ¼-in. choke; tubing pressure 500 lbs.
Hamil & Smith's No. 1 Schep, 1,225 ft. N, 325 ft. E from SW cor. of the most southerly SW cor. of the I. W. Stinde Sur.
Drlg. wtr. sand 4,250 ft.
West Prod. Co.'s No. 1 Forbes, center of Blk. 15, F. J. Rothas Sur.
Building derrick.
West Prod. Co.'s No. 1 J. E. Lobit, Blk. 9, F. J. Rothas Sur.
Drlg. shale 2,200 ft.
West Prod. Co.'s No. 1 Platt, W. B. Walker Sur., A-859.
T.D. 4,530 ft.; 7-in. csg. 4,300 ft.; I.P. 17 bbls. per hr.
West Prod. Co.'s No. 1 B. J. Speck, 330 ft. each way from the NW cor. of the tract, W. R. Wilson Sur.
Rig up.

TOMBALL—HARRIS COUNTY

Humble O. & R. Co.'s No. 2 Ford, 363 ft. from SE line, 525 ft. from most southerly SW line, E. Smith Sur.
Coring 5,492 ft.
Humble Oil & Ref. Co.'s No. 3 Moody, 527 ft. S of N line, 466 ft. E of W line of tract, J. H. Edwards Sur.
T.D. 5,558 ft.; I.P. 2 bbls. of distillate per hr.; R.U. to W.O.
Humble Oil & Ref. Co.'s No. 3 Gebhardt, 1,600 ft. from N line, 466 ft. E of W line of tract, G. W. Hahl Sur.
Top sand 5,543 ft.; 7-in. csg. 5,550 ft.; T.D. 5,553 ft.
Humble Oil & Ref. Co.'s No. 4 Blocher, 466 ft. S of most northerly N line, 421 ft. W of most easterly E line of tract, Hooper & Goodrich Sur.
T.D. 5,562 ft.; 7-in. csg. 5,545 ft.; I.P. 24 bbls. per hr. on ¼-in. choke; tubing pressure 525 lbs; csg. pressure 525 lbs.
Humble O. & R. Co.'s No. 1 Laird, 466 ft. from SE line, 20 ft. W of lease, J. Pruett Sur.
Drlg. shale 955 ft.
Humble O. & R. Co.'s No. 2 Martens, 1,534 ft. from S line, 185 ft. from E line of lease, J. House Sur.
Drlg. shale 1,672 ft.
Humble O. & R. Co.'s No. 1 Hillegeist, 1,-116 ft. from S line, 330 ft. from W line of 44.35-ac. tract, J. House Sur.
T.D. 5,617 ft.; I.P. 20 bbls. per hr. on ¼-in. choke; tubing pressure 775 lbs.; csg. pressure 750 lbs.
Shell Pet. Corp.'s No. 1 Rudel, 947 ft. W, 377 ft. N of SE cor. of lease, Wm. Hurd Sur.
Drlg. shale 1,879 ft.
Texas Co.'s No. 1 Mueller, 850 ft. S, 600 ft. W of NE cor. of lease, J. M. Hooper Sur.
Derrick.
Texas Co.'s No. 3 Ziegler, 1,449 ft. E of W line and 446 ft. S of N line of lease, 930 ft. E of No. 1.
T.D. 5,583 ft.; 7-in. csg. 5,583 ft.; I.P. 12 bbls. per hr.; tubing pressure 305 lbs.; csg. pressure 740 lbs.

VANDERBILT—JACKSON COUNTY

Imperator Oil Co.'s No. 1 Dutton, S C of Lot No. 11, Blk. 25, 450 ft. S of R.R. and 1,250 ft. W line of townsite, Ray Musquiz Sur.
Rigged up and S.D.
Turman Oil Co.'s No. 1 T. H. Miller, 150 ft. each way out of E 50 ac. of Miller 100-ac. tract in Ray Musquiz Sur.
Rigging up.

BIG HILL—JEFFERSON COUNTY

Yount Lee Oil Co.'s No. 1-B Pipkin & Davis, 2,225 ft. from E line and 2,285 ft. from N line of survey, Wm. McFadden Sur.
Drlg. shale 2,833 ft.

FANNETT—JEFFERSON COUNTY

Gulf Prod. Co.'s No. 5 Junker.
Drlg. rock 2,788 ft.

CLEVELAND—LIBERTY COUNTY

Black Gold Pet. Oil Corp.'s No. 2 R. D. McDonald, 466 ft. W of most westerly E line and 466 ft. N of most northerly S line of survey, 933 ft. W of Gulf Prod. Co.'s No. 7-C Kirby Lbr. Co., T. Devers Sur.
Derrick.
Gulf Prod. Co.'s No. 9-C Kirby Lbr. Co., 1,-967 ft. N, 1,400 ft. E from the NE cor. of J. S. Eldridge Sur. in the John Pleasant Sur.
Prepare to test; T.D. 5,682 ft.
William J. Colegrove et al's No. 1 State School Land & Dev. Co., 446 ft. from W line and 170 ft. from S line of survey, Clayton Harper Sur.
Location.

ESPERSON—LIBERTY COUNTY

General Crude Oil Co.'s No. 21 Esperson.
Drlg. hard rock 6,591 ft.
General Crude Oil Co.'s No. 1 W. D. Kay, Malcolm Duncan Sur., 1,527 ft. along N
Drlg. hard sand 7,025 ft.
General Crude Oil Co.'s No. 10 Davis, 2,000 ft. from E line, 660 ft. from S line of D. Kokernut Sur.
Drlg. sandy shale 7,010 ft.

HANKAMER—LIBERTY COUNTY

Cretaceous Oil Co.'s No. 3 Exzell, 450 ft. W of E line of tract, Levi Barrow Sur.
T.D. 2,640 ft.; 7-in. csg. 2,555 ft.
Eljean Oil Co.'s No. 1 Exzell, 1,325 ft. from N. 150 ft. from E line of Exzell 175-ac. tract.
T.D. 2,621 ft.; 7-in. csg. 2,593 ft.
Gulf Prod. Co.'s No. 1-B W. L. Bingle, 159 ft. E along S line of H.&T.C. Sur., thence 378 ft.
Drlg. rock 4,155 ft.
Gulf Prod. Co.'s No. 19 E. W. Boyt, 100 ft. from W line, 298 ft. S of No. 18, Amos Allen Sur.
Drlg. gumbo 419 ft.
Gulf Prod. Co.'s No. 20 E. W. Boyt, 1,235 ft. along W line of survey, 159 ft. from W line at R/A, Amos Allen Sur.
Location.
Gulf Prod. Co.'s No. 21 E. W. Boyt, 110 ft. from W line of Amos Allen Sur.
Location.
Gulf Prod. Co.'s No. 22 Boyt, Allen Sur.
Rig up.
Jones Drlg. Co.'s No. 1 Exzell, 1,050 ft. S of N line, 150 ft. W of E line of Levi Barrow Sur.
Cmtd. csg. 2,621 ft.
Will Strozier et al's No. 1 Exzell, 700 ft. N of S line, 150 ft. W of E line of Levi Barrow Sur.
Derrick.

HULL—LIBERTY COUNTY

Fondren & Snowden's No. 2 Humble-Hooks, 50 ft. from S line, 300 ft. NW of No. 1, J. Devore Sur.
Rig up.
Gulf Prod. Co.'s No. 108 Phoenix, 1,335 ft. S, 641 ft. from W line of lease, J. Devore Sur.
T.D. 3,550 ft.; I.P. 370 bbls. through ¼-in. choke; tubing pressure 300 lbs.; csg. pressure 500 lbs.

VAN VLECK—MATAGORDA COUNTY

Skelly Oil Co.'s No. 3 Cobb "B," 2,750 ft. from NW line, 2,900 ft. from SW line of M. Cummins Sur.
Derrick.

MARKHAM—MATAGORDA COUNTY

Hamil & Hamil's No. 1 Hardy, 150 ft. E and 150 ft. S from NW cor. Hardy lease, H. Parker Sur.
Location.

MOSS BLUFF—LIBERTY COUNTY

Gulf Coast Sulphur Co.'s No. 1 McManus, 558 ft. from E, 1,650 ft. from N line of W. A. tract, B. M. Spinks Sur.
Location.

CONROE—MONTGOMERY COUNTY

Humble Oil & Ref. Co.'s No. 1 Taylor, 466 ft. from S line, 368 ft. from E line of lease, J. H. Davis Sur.
Coring shale 5,195 ft.
Sun Oil Co.'s No. 32 Foster.
Cmtd. csg. 5,110 ft.

SPLENDORA—MONTGOMERY COUNTY

Bryce McCandless et al's No. 1 Texas Long Leaf Lbr. Co., 330 ft. from N and E lines of the W½ of Blk. No. 8, Walker County School Land Sur.
Derrick.

ORANGE—ORANGE COUNTY

Trio Oil Co.'s No. 1 D. S. Cormier, 69 ft. W of E line and 39 ft. S of N line of 6.83-ac. tract in W. M. Dyson Sur.
2,912 ft.; no report.

PORT NECHES—ORANGE COUNTY

Texas Co.'s No. 4-B Polk, 750 ft. S and 1,-450 ft. W from NE cor. of lease, Jacob Beaumont Sur.
Location.
Texas Co.'s No. 5-B Polk, 750 ft. S and 850 ft. W from NE cor. of lease, Jacob Beaumont Sur.
26-in. csg. 121 ft.; T.D. 1,317 ft.
Texas Co.'s No. 6-B Polk, 750 ft. S and 250 ft. W from NE cor. of lease, Jacob Beaumont Sur.
Location.

LIVINGSTON—POLK COUNTY

Gem Oil Co.'s No. 3 Watt, 300 ft. S line, 330 ft. W line of lease, A. Viesca Sur.
Location.
Gem Oil Co.'s No. 2 Pratt, A. Viesca Sur.
Drlg. shale 4,210 ft.
Gem Oil Co.'s No. 6 Davis & Holmes, 653 ft. from W and 662 ft. from N line of survey, A. Viesca Sur.
Rig up.
Humble O. & R. Co.'s No. 9 Granbury & Smith, 2,000 ft. from N and 466 ft. from E lines of Sec. 10, A. Viesca Sur.
Moving in.
Sun Oil Co.'s No. 3 Pratt, 330 ft. W and 388 ft. S from SE cor. of T. A. Carlton Oil Co.'s 30-ac. lease, A. Viesca Sur.
Drlg. shale 2,410 ft.

SAN FELIPE—WALLER COUNTY

Buck Oil Co.'s No. 2 Vaughn, 300 ft. S, thence 200 ft. E from Seaport Oil Co.'s No. 1 Vaughn, J. McFarland Sur.
Rig up.

GRETA—REFUGIO COUNTY

Hewitt & Daugherty's No. 12 Lambert.
Rig up.
Humble O. & R. Co.'s No. 20 J. F. B. Heard, 466 ft. from N line, 810 ft. from N line, J. H. Peoples Sur.
T.D. 4,404 ft.; top sand 4,399 ft.; 7-in. csg. 4,390 ft.
Humble O. & R. Co.'s No. 1 Marberry, 4,-558 ft. from S line, 466 ft. from W line of John Denn Sur.
Top sand 5,452 ft.; T.D. 5,466 ft.; prepare to make D.S. test.

REFUGIO—REFUGIO COUNTY

Houston Oil Co.'s No. 26 Rooke, 660 ft. W of No. 24 Rooke.
Derrick.
Houston Oil Co.'s No. 24 Rooke, 660 ft. NW of No. 21, McMullen Sur.
Drlg. shale 4,212 ft.
Houston Oil Co.'s No. 25 Rooke, 660 ft. W of No. 23, McMullen Sur.
Drlg. shale 4,115 ft.
United Gas Co.'s No. 20 Lambert.
Drlg. sand 1,037 ft.
United Gas Co.'s No. 19 Lambert.
T.D. 4,402 ft.; jetting with gas.

TOM O'CONNOR—REFUGIO COUNTY

Quintana Oil Co.'s No. 9-A O'Connor, 933 ft. SW of No. 7-A, Swisher Sur.
Drlg. shale 3,730 ft.
Quintana Oil Co.'s No. 10-A O'Connor, 4,-000 ft. from W line, 3,500 ft. from NW line, Sec. 3, Swisher Sur.
Drlg. shale 3,827 ft.

McFADDIN-O'CONNOR DISTRICTS—VICTORIA AND REFUGIO COUNTIES

Texas Co.'s No. 9 McFaddin, 1,350 ft. N. 3 deg., 45 ft. S from No. 2.
Coring shale 6,186 ft.
Houston Oil Co.'s No. 1 Fagan, 330 ft. from Guadalupe River on the Fagan Island, F. and J. M. Rodrigues Sur., SW of McFaddin Field.
Drlg. shale 1,830 ft.

CLAY CREEK—WASHINGTON COUNTY

Sun Oil Co.'s No. 13 Janner, 400 ft. NW of No. 9, 565 ft. NE of No. 10, J. F. Perry Sur.
Drlg. 1,188 ft.

LOUISE—WHARTON COUNTY

Pure Oil Co.'s No. 1 John Macha, 318 ft. from NW line and from SE line of F. Walnut Sur., and 467 ft. from NE line of 101.53-ac. lease, M.&C. Sur. No. 25.
Coring 5,155 ft.
Pure Oil Co.'s No. 3 Stewart, 1,000 ft. SW and 318.25 ft. SE from N cor. of W. L. Stewart's 160-ac. tract, Morris and Cummings Sur. No. 25.
Running 7-in. csg.; T.D. 5,166 ft.

BAY JUNOP—TERRABONNE PARISH

Texas Co.'s No. 6-B State, 458 ft. S, 498 ft. E of NW cor. of Sec. 34-21s-14e.
Drlg. shale 7,720 ft.

CALLIOU ISLAND—TERRABONNE PARISH

Texas Co.'s No. 19 Calliou Island.
Abd. 5,835 ft.
Texas Co.'s No. 20 Calliou Island.
Drlg. sand and gravel 743 ft.
Texas Co.'s No. 23 Calliou Island.
Drlg. sandy shale 4,852 ft.

SOUTH LOUISIANA FIELDS

BLACK BAYOU—CAMERON PARISH

Shell Pet. Corp.'s No. 22 Watkins, 2,220 ft. W and 1,340 ft. S of NE cor. Sec. 18-12s-12w.
Drlg. shale 1,681 ft.
Shell Pet. Corp.'s No. 21 Watkins, 1,570 ft. E of NW cor. Sec. 17-12s-12w.
Reaming 3,782 ft.
Shell Pet. Corp.'s No. 3 State.
T.D. 6,159 ft.; S.D.

BOSCO—ACADIA AND ST. LANDRY PARISHES

Superior Oil & Prod. Co.'s No. 8 Hernandez, 105 ft. E, 219 ft. N of SW cor. of NW¼ Sec. 34-8s-3e.
Drlg. sand and shale 4,407 ft.
Superior Oil Prod. Co.'s No. 5 Larcade, 1,-424 ft. S, 350 ft. W of NE cor. of NW¼ Sec. 34-8s-3e.
Rig up.
Superior Oil Prod. Co.'s No. 2 Richard, 2,-916 ft. S, 799 ft. W of NE cor. of Sec. 34-8s-3e.
Drlg. sand and shale 5,329 ft.
Superior Oil Prod. Co.'s No. 3 Johnson, 2,-958 ft. S, 1,325 ft. W of NE cor. of Sec. 34-8s-3e.
13⅜-in. csg. 1,241 ft.; drlg. sand and shale 6,566 ft.
Superior Oil Prod. Co.'s No. 8 Larcade, 1,-775 ft. S, 3,062 ft. E of NW cor. Sec. 35-8s-3e.
T.D. 6,705 ft.; 7-in. csg. 6,684 ft.
Superior Oil Prod. Co.'s No. 9 Larcade, 2,-755.83 ft. N, 1,936.23 ft. W of SE cor. of Sec. 34-8s-3e.
T.D. 6,747 ft.; 7-in. csg. 6,742 ft.
Superior Oil Prod. Co.'s No. 1 S. Martinez, 2,672.1 ft. S, 2,033 ft. E of NW cor. Sec. 35,
T.D. 6,606 ft.; 7-in. csg. 6,582 ft.
Superior Oil Prod. Co.'s No. 3 Le Blanc, 1,698 ft. S, 937.09 ft. W of NE cor. Sec. 33-8s-3e.
Drlg. sand and shale 4,320 ft.
Superior Oil Prod. Co.'s No. 2 E. Mire, 1,-039.07 ft. S, 916.82 ft. W of NE cor. Sec. 33-8s-3e.
13⅜-in. csg. 1,222 ft.; drlg. sand and shale 7,998 ft.
Superior Oil Prod. Co.'s No. "G" Hernandez, 3,358 ft. S, 683 ft. E of NW cor. Sec. 35-8s-3e.
T.D. 8,716 ft.; 7-in. 8,606 ft.; I.P. 351 bbls. in 24 hrs. through 9/64-in. choke; tubing pressure 2,359 lbs.; csg. pressure 2,900 lbs.
Superior Oil Prod. Co.'s No. 2 Falls, 330 ft. N, 1,796 ft. W of SE cor. of Sec. 27-8s-3e.
T.D. 7,847 ft.; swabbing.

DARROW—ASCENSION PARISH

Athens Oil Co.'s No. 1 United Land, 1,400 ft. S, 1,530 ft. W of NE cor. Sec. 15-10s-4e.
Rig up.
Humble O. & R. Co.'s No. 5 Community, 228 ft. SW of NE line of section, 200 ft. at R/A to east bank of river, Sec. 33-10s-2e.
Drlg. shale 4,553 ft.
Humble O. & R. Co.'s No. 4 Community, 4,825 ft. from NE cor. and 283 ft. S of N line at R/A, Sec. 33-10s-2w.
Digging cellar.

CAMERON MEADOWS—CAMERON PAR.

Burton Drlg. Co.'s No. 6 School Land, 423 ft. E of No. 5.
Rig up.
;Burton-Sutton Oil Co.'s No. 6 School Lot, 423 ft. E of No. 5.
Rig up.
Burton-Sutton Oil Co.'s No. 4 School Land, 2,891 ft. W and 150 ft. N of SE cor. of Sec. 16-4s-13w.
Derrick.

CHOCTAW DOME—IBERVILLE PARISH

Standard Oil Co.'s No. 1 Myrtle, 900 ft. N and 550 ft. W of SE cor. of SW¼ of Sec. 52-9s-11e.
Rig up.
Standard Oil Co.'s No. 5 Gay, 2,450 ft. S and 425 ft. E of NW cor. of NE Sec. 32-9s-11e.
Coring oil sand 4,581 ft.

DOG LAKE—TERREBONNE PARISH

Texas Co.'s No. 17 State.
Drlg. sandy lime 5,310 ft.

FOUR ISLE—TERREBONNE PARISH

Texas Co.'s No. 9 L. L. and E., 1,838 ft. E, 2,243 ft. E of NW cor. Sec. 24-21s-16e.
Location.

GARDEN ISLAND BAY—TERREBONNE PARISH

Texas Co.'s No. 13 State, 3,391 ft. S and 1,-604 ft. W of NE cor. Sec. 107-23-32.
Rig up.

GUEYDAN—VERMILLION PARISH

Pure Oil Co.'s No. 6, Alliance Trust, 667 ft. E, 1,787 ft. S line of lease, Sec. 34-11s-1w.
Sidetracked 9,278 ft.

HACKBERRY—CAMERON PARISH

Gulf Prod. Co.'s No. 18 Erwin, 271 ft. W and 722 ft. N of SE cor. of Sec. 13-12s10w.
Drlg. shale and lime 5,152 ft.
Sutton Oil Co.'s No. 2 Portier, 717 ft. S and 50 ft. W of NW cor. SW¼ SE¼ Sec. 22-12s-10w.
Drlg. shale 3,730 ft.
Texas Co.'s No. 14 State, 500 ft. SE of No. 13, Sec. 13-12s-10w.
T.D. 5,449 ft.; P.B. 2,400 ft.
Texas Co.'s No. 15 State, Sec. 13-12s-10w.
Drlg. shale 6,080 ft.
Union Sulphur Co.'s No. 3 Humble (W.O.).
Drlg. sandy shale 5,978 ft.
Yount Lee Oil Co.'s No. 13 Gulf Land, Sec. 14-12s-10w.
S.D. 4,823 ft.; crooked hole.
Yount Lee Oil Co.'s No. 1-A Gulf Land, 2,000 ft. S and 50 ft. E of the NW cor. of Sec. 22-12-10.
Rig up.

NEW IBERIA—IBERIA PARISH

Iberia Oil Corp. and Y. D. Spell's No. 3 Bernard, 150 ft. E of No. 1, Sec. 56-12s-7e.
S.D. 3,846 ft.; salt.

IOWA—CALCASIEU AND JEFF DAVIS

Shell Pet. Corp.'s No. 15 Heyd, 990 ft. S, 998 ft. W of NE cor. Sec. 13-9s-7w.
Location.
Shell Pet. Corp.'s No. 4 J. D. Tuten, 330 ft. S, 1,819 ft. W of NE cor. SE¼ Sec. 13-9-7.
Drlg. shale 1,530 ft.
Shell Pet. Corp.'s No. 4 Tuten, 330 ft. S, 1,819 ft. W of NE cor. SE¼ Sec. 13-9s-7.
Drlg. shale 1,530 ft.
Shell Pet. Corp.'s No. 2 Adrain.
Redrlg. hole 7,028 ft.
Shell Pet. Corp.'s No. 4 Adrain, 1,650 ft. S, 330 ft. E of NW cor. of lease.
Drlg. shale 1,530 ft.

JENNINGS—ACADIA PARISH

Port City Oil Co.'s No. 15 Jennings-Haywood, 108 ft. E, 368 ft. S of NW cor. Sec. 41-9s-2w.
S.D. 1,600 ft.
Yount Lee Oil Co.'s No. 7 Houssiere-Latriele.
Drlg. shale 7,580 ft.

LAKE BARRE—TERREBONNE PARISH

Texas Co.'s No. 14 Lake Barre.
Drlg. anhydrite 3,820 ft.
Texas Co.'s No. 15 Lake Barre.
Drlg. anhydrite 3,735 ft.

LAKE PELTO—TERREBONNE PARISH

Texas Co.'s No. 12 Lake Pelto.
Cutting and pulling liner 2,595 ft.

LEESVILLE—LAFOURCHE PARISH

Gulf Prod. Co.'s No. 6 Allen Lane, Sec. 21-21s-22e.
Rig up.
Gulf Prod. Co.'s No. 12 Bernard, Sec. 21-21s-22e.
Location.
Gulf Prod. Co.'s No. 10 Bernard, 1,833 ft. E, 958 ft. S of NW cor. Sec. 28-21s-22e.
Derrick.
Emerald Pet. Co.'s No. 10, State, west bank, 300 ft. S of well No. 1.

Location.
Emerald Pet. Co.'s No. 11 State, east bank, 227 ft. N of well No. 1.
Location.
Emerald Pet. Co.'s No. 12 State, east bank, 250 ft. S of well No. 1.
Location.
Texas Co.'s No. 32 Leesville, 890 ft. S, 2,484 ft. W of NE cor. SE¼ Sec. 27-21s-22e.
Location.
Texas Co.'s No. 33 Leesville, 1,590 ft. S, 2,484 ft. W of NE cor. SE¼ Sec. 27-21s-22e.
Rig up.
Texas Co.'s No. 36 Leesville, 476 ft. S, 335 ft. E of NW cor. SW¼ Sec. 26-21s-22e.
Building foundation.
Texas Co.'s No. 37 Leesville, 1,266 ft. N, 103 ft. W of SE cor. NE¼ Sec. 27-21s-22e.
Building foundation.
Texas Co.'s No. 27 Leesville.
Drlg. shale 3,339 ft.

LOCKPORT—CALCASIEU PARISH

Union Sulphur Co.'s No. 6 Moss, located between No. 2 and No. 5 (W.O.).
Prepare to core deeper; T.D. 6,644 ft.

STARKS—CALCASIEU PARISH

Gulf Prod. Co.'s No. 37 Lutcher-Moore, 250 ft. E and 775 ft. N of SW cor. of Sec. 19-10s-12w.
Drlg. lime and anhydrite 4,235 ft.

PORT BARRE—ST. LANDRY PARISH

Gulf Prod. Co.'s No. 12 Wilson Cochran, Sec. 4-5s-6e.
Coring sand 3,630 ft.
Port Barre Oil Co.'s No. 2 Sybil, 3,080 ft. N easterly along section line, thence 55 ft. at R/A to the east, Sec. 20-4s-5e.
S.D. 3,763 ft.

ROANOKE—JEFFERSON DAVIS PARISH

Classel et al's No. 1 La. Irrigation Mill Co., 695.5 ft. E and 475 ft. N of SW cor. Sec. 1-9s-4w.
Location.
Humble O. & R. Co.'s No. 1 Clayton, 2,233 ft. from S line, 440 ft. from E line, Sec. 10-9s-4w.
Drlg. sandy shale 1,539 ft.
Humble O. & R. Co.'s No. 2 C. N. Taylor, 1,320 ft. E, 440 ft. S of NW cor. of SW¼ Sec. 12-9s-4w.
Rig up.
Humble O. & R. Co.'s No. 1 Nelson Thomas, 880 ft. W of No. 2 Kratzer, 440 ft. N and W of SE cor. of 200-ac. tract.
Drlg. hard sandy lime 8,237 ft.
Humble O. & R. Co.'s No. 2-B Devilbiss, 1,127 ft. W of No. 1-B, 440 ft. S of N line of S½ of Sec. 11-9s-4w.
Drlg. sandy shale 9,244 ft.
Shell Pet. Corp's No. 1 Jarnigan, 330 ft. E, 660 ft. S, NW cor. Sec. 12-9s-4w.
Drlg. hard sandy shale 9,046 ft.
Shell Pet. Corp.'s No. 2 Kratzer, 1,330 ft. E and 440 ft. N of SW cor. of lease.
T.D. 7,597 ft.; testing.
Shell Pet. Corp.'s No. 1-B Kratzer, 660 ft. N, 330 ft. E of SW cor. of SW¼ Sec. 1-9s-4w.
Drlg. sandy shale 7,452 ft.
Shell Pet. Corp.'s No. 4 Kratzer.
Drlg. sandy shale 4,464 ft.

SULPHUR—CALCASIEU PARISH

Union Sulphur Co.'s No. 810 fee, 1,955 ft. S, 440 ft. E of NW cor. Sec. 29-9s-10w.
9⅝-in. csg. 2,623 ft.; T.D. 2,668 ft.
Union Sulphur Co.'s No. 1 Noble (W.O.).
Pumping.
Union Sulphur Co.'s No. 3 Kelly.
Drlg. sand 5,753 ft.
Union Sulphur Co.'s No. 809 fee.
T.D. 3,890 ft.; P.B. 3,520 ft.

WHITE CASTLE—IBERVILLE PARISH

Shell Pet. Corp.'s No. 1 Wilbert.
Rig up.
Shell Pet. Corp.'s No. 1 White Castle Shingle Co., 1,830 ft. W, 100 ft. S from NE cor. of lease.
S.D. 4,234 ft.
Shell Pet. Corp.'s No. 1 Adams, 2,340 ft. N. 100 ft. E of SW cor. of lease.
T.D. 7,816 ft.; reaming 7,660 ft.

MISCELLANEOUS WILDCATS

TEXAS

AUSTIN COUNTY

Deering & Kayser's No. 1 P. A. McClinton, 1,100 ft. from NW line and C NE and SW of 115-ac. tract in Thomas Bell Sur.
Drlg. shale 1,576 ft.
Paul English et al's No. 1 Felix Guhn, 1,000 ft. S, 360 ft. E from NW cor. of 71-ac. tract, D. Chomel Sur., 1 mile SE of Kinney.
Rig up.

BRAZORIA COUNTY

Amerada Pet. Corp.'s No. 2 Houston Farms Dev. Co., 2,150 ft. SE, 5,800 ft. SW of N cor. of B.B.B.&C. Sur., in the Perry & Austin Sur.
Location.
George Strake's No. 2 Truska, 991 ft. W of No. 1, H.T.&B. Sur., Sec. 7.
S.D. 6,000 ft.
Showers & Moncrief's No. 1 Hughey, 5,500 ft. NW of discovery well, in center of Lot 18, H.T.&B. Sur., Sec. 29, Abst. 292.
Location.
Texas Co.'s No. 1 Freeport Sulphur Co., 2,764 ft. N, 1 deg., 40 ft. W and 1,134 ft. S, 88 deg., 20 ft. W of NW cor. of S. F. Austin Sur., Abst. No. 35, being in the Conception Areola Sur.
Reaming to set 9⅝-in. csg.; T.D. 4,186 ft.

CALHOUN COUNTY

Continental Oil Co.'s No. 2 American National Realty Co., 660 ft. from NW line, 660 ft. from NE line of Sec. 6, Blk. C, Pedro Garcia Sur.
S.D. 6,522 ft.

CHAMBERS COUNTY

South Gulf Oil Co.'s No. 1 J. T. White, Luke Brian Sur., 460 ft. from N line, 460 ft. from W line of 47.9-ac. tract.
Drlg. shale 6,410 ft.

COLORADO COUNTY

Gulf Prod. Co.'s No. 1 A. R. Millentz, 990 ft. N along E line from SE cor. of 160-ac. lease and 330 ft. W at R/A, I.&G.N.R.R. Co. Sur. No. 23.
Abd. 5,550 ft.

FAYETTE COUNTY

Lewis Franklin's No. 1 V. Dybala, center of 75-ac. lease, A. Thompson Sur.
Location.

FORT BEND COUNTY

C. B. Bunte's No. 1 Winston, 1,495 ft. E of W line, 2,381 ft. N of S line of 350.6-ac. tract, S. Isaacs Sur.
Location.
W. A. Shafer et al's No. 1 V. B. Bortash, 693 ft. SW of NE line and 1,003 ft. NW of SE line of Sec. 52, H.&T.C. Sur.
S.D. 2,900 ft.
George White et al's No. 1 M. M. Cravins, 1,000 ft. from N, 300 ft. W of SW cor. of survey, B.B.B.&C. Sur. No. 3.
Rig up.

GALVESTON COUNTY

Coast Pet. Co.'s No. 1 Stewart, 3,416 ft. S, 200 ft. E of NW cor. of 143-ac. tract, W. K. Wilson Sur.
Rig up.
Gillock Pet. Co.'s No. 2 Maco Stewart, 900 ft. N and 150 ft. W of No. 1, Alex Farmer Sur.
T.D. 1,500 ft.; S.D.

GRIMES COUNTY

Hubert Holt et al's No. 1 Simon Fuqua, 1,200 ft. N of S line and 400 ft. W of E line of 177-ac. lease and survey, Moses Evans Sur.
S.D. 3,080 ft.
Dr. Marshall et al's No. 1-B Todd, 300 ft. from E line and 175 ft. from N line of 150-ac. tract in extreme NW cor. of county (25 ft. N of No. 1).
S.D. 2,005 ft.
Patton et al's No. 1 Yeager, 1,000 ft. W of E line, 170 ft. S of N line of 53-ac. tract and survey, A. Ruseolle Sur., NW of Iola Sur.
S.D. 1,000 ft.
Roan et al's No. 1 S. W. Sealy, 3,474 ft. N of S line and 950 ft. E of W line of survey, B. F. Smith Sur., 2 miles SW of Kellum Springs.
Abd. 3,278 ft.

HARDIN COUNTY

Frazier & Greer's No. 1 Sternberger Lbr. Co., 1,325 ft. S and 400 ft. W of the NE cor. of a 115-ac. tract, J. Pearson Sur.
Abd. 6,897 ft.
Kirby Pet. Co.'s No. 3 Kirby, 2,330 ft. W, 9,850 ft. S of NE cor. of J. Stephenson Sur.
10¾-in. csg. 800 ft.; drlg. plug.

HARRIS COUNTY

Herbert-Still & Hooper's No. 1 Racker, 990 ft. E of W line, 4,290 ft. N of S line of J. C. Ogburn Sur.
Rig up.
T. S. F. Oil Co.'s No. 1 J. B. Hine, Arthur McCormick Sur., Abst. 46.
Drlg. shale 3,815 ft.
C. C. Foster et al's No. 1 H. K. Johnson, 2,000 ft. from S line and C of E and W lines of G.C.&S.F. Sur.
Drilled 25 ft. and S.D.
Stanolind O. & G. Co.'s No. 1 fee land, 330 ft. S, 300 ft. E of NW cor. of 20-ac. tract Sur., Sec. No. 5.
T.D. 5,069 ft.; P.B. 4,825 ft.; reaming to set csg.
West Prod. Co.'s No. 1 Woodburn, 1,320 ft. E of W line, 2,145 ft. N of S line of survey, A. Whitlock Sur.
Drlg. shale 6,515 ft.

JACKSON COUNTY

A. M. Harris' No. 1 Whitley, 800 ft. out of SE cor. of F. G. Keller Sur.
Location.
Shell Pet. Corp.'s No. 1 W. W. McCrary, 460 ft. out of SE cor. of 50-ac. tract, A. Kountze Sur.
Coring sand 7,369 ft.

JEFFERSON COUNTY

Humble O. & R. Co.'s No. 1 J. T. White, 330 ft. out of SW cor. of T.&N.O.R.R. Sur. No. 370.
Location.
Sun Oil Co.'s No. 1 Hebert & Braussard, 6,890 ft. NW along SW line and 660 ft. NE at right angles to SW line, B. Blackman Sur., Abst. No. 2.
Rig up.

LAVACA COUNTY

L. A. Douglas' No. 1 Fehrenkamp, 600 ft. from W line, 720 ft. from N line of Mitchell Sur.
Abd. 2,851 ft.

LIBERTY COUNTY

R. M. Bruner et al's No. 1 N. Bell, 150 ft. from N line and 150 ft. from W line of Bell's 187-ac. tract, H.&T.B. Sur. No. 4.
Rigging up.
Extension Oil Co.'s No. 1 J. A. Lovett, 330 ft. from E and 600 ft. from S line of lease.
P. P. Deevers Sur.
S.D. 4,048 ft.
J. W. Frazier et al's No. 2 Lynott & Buffum, 466 ft. from N and E lines of 40-ac. tract in extreme SE part of survey, James Robeson Sur.
Prepare to spud.
Liberty-Independent Oil Co.'s No. 1 J. M. Neal, 3,550 varas from E line and 505 varas from N line of Samuel Strong Sur.
S.D. 4,110 ft.
A. L. Maxwell's No. 1 M. P. Hinciiff, 300 ft. from E line and 1,000 ft. from the N line of survey, H.&T.C. Sur., Sec. 10s.
Drlg. shale 5,213 ft.
Thomas et al's No. 1-A Eicke, 660 ft. from W line and 2,350 ft. from S line of tract in Green Sur.
T.D. 5,047 ft.; 6⅝-in. csg. at 5,039 ft.
Turnbull & Irwin's No. 1 Cox, 1,000 ft. from the E line and 200 ft. from S line of 106.2-ac. lease, F. J. G. Smiley Sur.
Location

MADISON COUNTY

Madisonville Pet. Co.'s No. 1 Cannon, 660 ft. N of S line, 440 ft. E of W line of 135-ac. tract, J. V. Phillips Sur.
Location.

MATAGORDA COUNTY

Continental Oil Co.'s No. 1 Feife, J. S. Criswell Sur., 3,000 ft. E of W line, 2,800 ft. N of S line of survey.
Drlg. shale 1,310 ft.

Dr. Griffith's No. 1 fee, 3,000 ft. from E line and 2,000 ft. from W line of Wm. H. Bell Sur.
Rig up and S.D.
Horace M. Smith, Inc.'s No. 1 Wadsworth ranch, 150 ft. out of S cor. of Lot No. 2, Blk. S. R. Fisher Sur.
Coring shale 3,278 ft.

MONTGOMERY COUNTY

Travis Baker et al's No. 1 Foster Estate, 1,200 ft. E of W line and 700 ft. S of N line of Blk. No. 50, J. M. De La Garza Sur.
Derrick.
Charles B. Gohlson's No. 1 Aaron Parks, 250 ft. from S line, 200 ft. from E line of Parks 139-ac. tract, J. Lindley Sur.
T.D. 3,769 ft.; tested 1 joint of oil, 1 joint of mud on D.S. test; S.D.
Paul Sanderson, trustee's No. 1 Texas Long Leaf Lbr. Co., 3,500 ft. W, 1,750 ft. S of NW cor., Wm. Barker Sur.
Location.
Trans State Oil Co.'s No. 1 Foster, 700 ft. E of W line, 3,000 ft. N of S line, Lot 27.
Abd. 5,232 ft.
Woodard-Smith-Cooper's No. 1 J. V. Scott, F. A. B. Wheeler Sur.
Abd. 3,608 ft.

ORANGE COUNTY

Blue Line Oil Co.'s No. 1 Godwin, Richard Ballew Sur., 300 ft. from E line and 150 ft. from NE line of Godwin 20-ac. tract.
S.D. 2,770 ft.
Ellis Oil Co.'s No. 1 G. W. Pell, 100 ft. from N and 300 ft. from W line of Pell tract in the J. M. Henerie Sur.
S.D. 1,720 ft.
Dick Schwab's No. 1 East Texas Canal Co., 330 ft. from the N and W lines of 234-ac. tract, John Jett Sur.
10-in. csg. 595 ft.

POLK COUNTY

Howard Daily et al's No. 1 Z. B. Knox, 1,450 ft. W and 1,920 ft. S of NE cor. of F. Chairs Sur., 16 miles NE of Corrigan.
S.D. 60 ft.
J. F. Anderson's No. 1 E. L. Duke (O.W.D. D.), 400 ft. from E and 350 ft. from S of SW cor. of P. Michelick 50-ac. lease, Abst. 59, P. J. Mineral Sur.
Waiting on a new mud pump; T.D. 5,304 ft.
J. W. Leggett et al's No. 1 Bergman, C of 294-ac. tract, or 1,100 ft. W of H.E.&W.T. R.R., J. T. Pinkney Sur.
Rig up.
Dick Schwab's No. 1 Lynch, 330 ft. out of NW cor. of 200-ac. tract in the George Jameson Sur.
Location.

REFUGIO COUNTY

Conroe Drlg. Co.'s No. 1 Weiss, NE cor. NW¼ Sec. 40, Bonnieview Subd.
Coring 5,363 ft.
Cecil Hagen et al's No. 1 Edith Clarkson, 1,736 ft. from N line, 3,820 ft. from E line of J. Coughlin Sur.
Location.
Magnolia Pet. Co.'s No. 1 Woods, 330 ft. from S and W lines of S. Turner Sur.
Heaving shale 7,645 ft.

ROBERTSON COUNTY

H. L. Patton's No. 1 H. Ely, located on a 616-ac. tract, A. Manchola Sur.
Drlg. 2,590 ft.

SAN JACINTO COUNTY

Shell Pet. Corp.'s No. 1 K. Moore, 5,400 ft. from W line, 1,250 ft. from S line of lease, T. F. De Rumayor Sur.
Rig up.
Ralph Sturam et al's No. 1 R. B. Love et al, 475 ft. S of N line and 2,000 ft. W of E line of 177-ac. tract, Drury McGee Sur.
Moving in rig.

TRINITY COUNTY

Gulf Prod. Co.'s No. 1 Trinity Lbr. Co., 4,500 ft. W of E line, 1,200 ft. N of S line of survey, J. M. Gomez Sur.
Drlg. sandy shale 2,615 ft.

VICTORIA COUNTY

Costa Oil Co.'s No. 1 Henderson & Pickering, 330 ft. out of NW cor. of Lot 19, Wm. Rupley Sur.
Location.
Costa Oil Co.'s No. 1 Schovjasa, 330 ft. out of N cor. of Lot No. 14, Wm. Rupley Sur.
U.R. to rerun screen and test; T.D. 4,789 ft.
Eastern States Pet. Co.'s No. 1 Williams, 330 ft. out of S cor. of 130-ac. tract, E. Benavides Sur.
Location.
L. A. Gillespie and Superior Oil & Gas Co.'s No. 1 R. W. Brandt, 330 ft. from NE line, 330 ft. from NW line of tract No. 11, Henderson & Pickering Subd., Wm. Rupley Sur.
Cmtd. surface csg.
L. A. Gillespie and Superior Oil & Gas Co.'s No. 1 John Janis, 330 ft. from SW line of survey and on the SE line of Nancy Dean Sur.
Location.
Gillespie and Superior O. & G. Co.'s No. 1 Farber, 330 ft. from N and E lines of Lot 6, Nancy Dean Sur.
T.D. 6,200 ft.; cmtd. csg. 5,490 ft.
Magnolia Pet. Co.'s No. 1 Henderson & Pickering, E offset to discovery well, Wm. Rupley Sur.
Drlg. shale 600 ft.

WALKER COUNTY

Boone Bros.' No. 1-D Texas Long Leaf Lbr. Co., 330 ft. E and 275 ft. N of SW cor. of 112.6-ac. tract, Mary Milsap Sur.
Top salt 3,855 ft.; S.D. 3,905 ft. in salt.
S. E. Gray's No. 1 Winsell, 1,200 ft. N and 1,000 ft. E of most southerly S line of survey.
T.D. 4,160 ft.; reaming to core ahead.

WASHINGTON COUNTY

Powers Prod. Co.'s No. 1 Boenker, 550 ft. S, 250 ft. W from NW cor. of Dodson 160 acres, J. Newman Sur.
Spudded.

WHARTON COUNTY

Texas Co.'s No. 2 Pierce Estate, 2,425 ft. S, 31 degrees 20 ft. E, 4,400 ft. N, 58 deg. 40 ft. E from W cor. of Pierce Estate Land, I.&G.N.R.R. Sur. No. 39.
Drlg. sand and shale 4,107 ft.

SOUTH LOUISIANA

ACADIA PARISH

Continental Oil Co.'s No. 1 T. Ortego, 890 ft. S, 500 ft. E of NW cor. SW¼ Sec. 28-7s-2w.
15⅝-in. csg. 1,357 ft.
Humble O. & R. Co.'s No. 1 American Rice Mills, 660 ft. S and 1,320 ft. W from NE cor. Sec. 27-10s-1e.
Drlg. sand and shale 8,263 ft.

AVOYELLES PARISH

Bell Drlg. Co.'s No. 2 Thompson, 450 ft. S, 860 ft. E, NW cor. NE¼ Sec. 11-2n-5e.
Rig up and abd.
Southern State Pet. Co.'s No. 1 Boyette, 330 ft. N and 330 ft. E of SW cor. Sec. 28-3n-5e.
S.D. 3,887 ft.

BEAUREGARD PARISH

Chew & Kirby's No. 1 Long Bell Lbr. Co., 330 ft. S and W of C of NE¼ Sec. 26-2s-8w.
S.D. 2,880 ft.
Richardson & Martin's No. 1 Southwest Lbr. Location.

CALCASIEU PARISH

Fred Oil Co.'s No. 2 Faizst, 262 ft. E and 83 ft. S of NW cor. SE¼ Sec. 36-8s-10w.
Drlg. gumbo 3,113 ft.
Fohs Oil Co.'s No. 5 Castle, 660 ft. S. of No. 1 Castle
T.D. 7,075 ft.; 7-in. csg. 7,056 ft.; I.P. 563 bbls. per day through 10/64-in. choke; tubing pressure 1,035 lbs.; csg. pressure 1,185 lbs.
Nicholas McCaleb's No. 1 Grey, 2,200 ft. S 1,200 ft. E of NW cor. Sec. 23-8s-13w.
S.D. 850 ft.
Texas Co.'s No. 3 Nickerson, 2,739 ft. N, 3,750 ft. W of SE cor. Sec. 12-10s-8w.
Drlg. shale 5,430 ft.
Texas Co.'s No. 2 Nickerson, 2,304 ft. N, 4,322 ft. W of SE cor. NW sec. 12-9s-8w.
7⅝-in. csg. 6,735 ft.; T.D. 6,752 ft.; S.D.; high wtr.
Union Sulphur Co.'s No. 7 State, 1,316 ft. N and 199 ft. E of the SW cor. of Sec. 12-9s-8w.
Location.
Union Sulphur Co.'s No. 9 State, NW offset to Texas Co.'s No. 2 Nickerson.
Drlg. sandy shale 4,373 ft.
Union Sulphur Co.'s No. 1 Castle, 326 ft. N and E of NW Sec. 13-9s-8w.
Drlg. sticky shale 5,330 ft.
Union Sulphur Co.'s No. 1 Buhler, 1,485 ft. N and 425 ft. W of SE cor. Sec. 11-9s-8w.
S.D. 4,062 ft.; high wtr.
Union Sulphur Co.'s No. 6 State.
S.D. 6,699 ft.; high wtr.
Union Sulphur Co.'s No. 2 Powell, 1,279 ft. S, 1,621 ft. E of NW cor. Sec. 12-9s-8w.
10-in. csg. 1,685 ft.
Wheeler Oil Corp.'s No. 1 School Lot, 1,708 ft. E, 1,325 ft. N of SW cor. Sec. 16-9s-7w.
Drlg. gumbo 3,000 ft.

CAMERON PARISH

Magnolia Pet. Co.'s No. 1 J. B. Broussard, 330 ft. E and S, out of NW cor. of the SW¼ of SE¼ of Sec. 13-12s-9w.
Drlg. wtr. sand 7,263 ft.
Steinberger Pet. Co.'s No. 1 Drew, 330 ft. out of NW cor. NE¼ of Sec. 26-10s-11w.
Location.

EAST BATON ROUGE PARISH

Superior Oil & Prod. Co.'s No. 1 Duplanter-Community, 1,500 ft. westerly along the N line from the NE cor. of D. A. and E. A. Duplanter's 130.7-ac. tract, thence 330 ft. at R/A.
Drlg. shale 7,497 ft.

EAST FELICIANA PARISH

Thompson Creek Oil Co.'s No. 1 Fannie Neland, 2,600 ft. E and 1,580 ft. N of SW cor. Sec. 70.
S.D. 1,589 ft.

EVANGELINE PARISH

Basile's No. 1 Haas, 1,680 ft. S of N line, 350 ft. W of E line of NE cor. Sec. 14-6s-2w.
Coring wtr. sand 3,870 ft.

IBERIA PARISH

Texas Co.'s No. 1 State Fausse Point.
Drlg. shale 5,110 ft.

JEFFERSON PARISH

Lincoln Oil Co.'s No. 1 Rigaud, Sec. 28-21s-25e.
T.D. 7,039 ft.; R.U. to deepen.

LAFOURCHE PARISH

Southern Sulphur Corp.'s No. 1 D. L. Lagraize, 800 ft. E of NW cor. of Lot 7, thence 250 ft. S of Sec. 26-21s-22e.
Spudded and shut down.

PLAQUEMINES PARISH

Venice Corp.'s No. 1 Burras.
Abd.; T.D. 2,119 ft.

RAPIDES PARISH

J. B. Evers' No. 1 G. Wettermark, 540 ft. S and 520 ft. E. NW cor. NE SW Sec. 35-6n-2e.
Abd. location.

ST. BERNARD PARISH

Danciger's No. 1 Battles, 336 ft. N, 2,198 ft. W of SE cor. Sec. 135-14s-14e.
Abd. 7,055 ft.
Emerald Pet. Corp.'s "Shell Beach Properties" No. 1, on S edge of Bayou Louis, Sec. 31-13s-15e.
Drlg. shale 1,310 ft.

ST. LANDRY PARISH

C. B. Bunte's No. 1 Thistle Waite Lbr. Co., 7,590 ft. W and 1,980 ft. S of NE cor. Sec. 68-5s-4e.
Drlg. shale 5,912 ft.

ST. MARTIN PARISH

Texas Co.'s No. 7 St. Martin Land, 2,042 ft. N, 500 ft. W of SE cor. of Sec. 17-8s-7e.
Derrick.
Texas Co.'s No. 1 State-Plumb Bob, 2,107 ft. E and 2,154 ft. N of SW cor. Sec. 9-8s-7w.
Drlg. shale 5,212 ft.

VERMILLION PARISH

Moore Bros.' No. 1 Brussard, 350 ft. S of N line, 250 ft. E of W line, NE cor. Sec. 32-11s-3e.
S.D. 4,056 ft.

Bureau of Mines Statistics for the Month of March, 1935

SUPPLY AND DEMAND OF ALL OILS
(Thousands of barrels of 42 gallons)

	March, 1935	February 1935	March, 1934	Jan.-Mar., 1935	Jan.-Mar., 1934
NEW SUPPLY:					
Domestic production:					
Crude petroleum	81,488	72,763	75,548	232,966	212,974
Daily average	2,629	2,599	2,437	2,589	2,366
Natural gasoline	3,223	2,952	3,019	9,461	8,838
Benzol*	153	148	159	445	421
Total production	84,864	75,863	78,726	242,875	222,233
Daily average	2,738	2,709	2,540	2,699	2,469
Imports†:					
Crude petroleum:					
Bonded warehouses	720	773	305	2,042	648
For domestic use	1,555	1,130	2,105	4,480	7,593
Refined products:					
Bonded warehouses	970	812	863	2,754	2,493
For domestic use	837	974	330	2,912	579
Total new supply, all oils	89,279	79,552	82,329	255,063	233,546
Daily average	2,880	2,841	2,656	2,834	2,595
Decrease in stocks, all oils	12,528	‡2,922	3,745	‡6,681	12,194
DEMAND:					
Total demand	86,751	76,630	86,074	248,382	245,740
Daily average	2,798	2,737	2,777	2,760	2,730
Exports:					
Crude petroleum	3,281	2,804	2,582	8,454	7,381
Refined products	6,564	§3,830	6,771	16,805	17,475
Domestic demand:					
Motor fuel	31,997	§26,432	30,528	86,491	84,992
Kerosene	3,959	4,597	4,218	12,855	12,617
Gas oil and fuel oil	30,249	29,643	32,377	93,643	94,823
Lubricants	1,617	1,297	1,643	4,471	4,385
Wax	75	64	78	208	250
Coke	485	593	736	1,760	2,597
Asphalt	709	612	512	1,913	1,273
Road oil	145	124	317	425	633
Still gas (production)	4,067	3,513	3,429	11,328	9,926
Miscellaneous	295	§162	193	571	381
Losses and crude used as fuel	3,478	2,958	2,690	9,458	8,997
Total domestic demand	76,906	§69,996	76,792	223,123	220,884
Daily average	2,481	2,500	2,475	2,479	2,454
STOCKS:					
Crude petroleum	339,139	337,319	354,067	339,139	354,067
Natural gasoline	5,252	4,781	3,926	5,252	3,926
Refined products	226,438	226,201	232,026	226,438	232,026
Total, all oils	570,829	568,301	590,019	570,829	590,019
Days' supply	204	§08	212	207	216

*From Coal Division. †Imports of crude as reported to Bureau of Mines; imports of refined products from Bureau of Foreign and Domestic Commerce. ‡Increase. §Revised.

PRODUCTION OF CRUDE PETROLEUM BY DISTRICTS
(Thousands of barrels of 42 gallons)

	March, 1935 Total	March, 1935 Daily av.	February, 1935 Total	February, 1935 Daily av.	Jan.-Mar., 1935	Jan.-Mar., 1934
Appalachian:						
Pennsylvania Grade	2,149	69.3	1,963	70 1	6,232	5,568
Other (inc. Kentucky)	571	18.4	531	19.0	1,685	1,462
Lima-N. E. Ind.-Mich.	1,142	36.9	1,083	38.7	3,329	2,735
Ill.-S. W. Ind.	435	14.0	351	12.6	1,177	1,318
Mid-Continent:						
N. La. and Ark.	1,654	53.4	1,484	53.0	4,728	5,142
W. Texas-S. E. New Mex.	6,362	205.2	5,632	201.2	18,182	15,427
East Texas	15,319	494.2	12,808	493.1	43,384	42,670
Other (Okla., Kans., N. Tex., etc.)	28,670	924.8	25,270	902.5	81,292	75,169
Gulf Coast	8,217	265.1	7,267	259.5	23,474	18,228
Rocky Mountain	1,534	49.5	1,411	50 4	4,574	3,785
California	15,431	497.8	13,959	498.6	44,901	41,467
Other*	4	.....	4	.....	8	2
Total	81,488	2,628.6	72,763	2,598.7	232,966	212,974

*Includes Missouri, Tennessee, and Utah.

STOCKS OF CRUDE PETROLEUM
(Thousands of barrels of 42 gallons)

	March, 31 1935	Feb. 28, 1935	March 31, 1934
At refineries by location:			
East Coast: Domestic	11,989	10,654	9,173
Foreign	2,082	2,249	2,859
Appalachian	1,544	1,426	1,819
Indiana, Illinois, Kentucky, Michigan	4,476	4,304	4,467
Oklahoma, Kansas, and Missouri	6,226	6,428	6,245
Texas: Inland	1,413	1,352	2,226
Gulf Coast: Domestic	10,302	10,944	11,605
Foreign	809	538	126
Louisiana Gulf Coast: Domestic	3,503	3,507	3,732
Foreign	1,655	713	551
Arkansas and Inland Louisiana	854	761	771
Rocky Mountain	13,297	13,440	12,809
California	7,703	8,514	9,144
Total	65,354	64,830	65,527
At refineries by origin:			
Pennsylvania Grade	1,245	1,196	1,502
Other Appalachian (inc. Kentucky)	623	653	579
Lima-N. E. Indiana-Michigan	359	311	483
Illinois-S. W. Indiana	123	150	154
N. Louisiana and Arkansas	2,116	2,049	2,706
West Texas and S. E. New Mexico	3,976	4,051	4,007
East Texas	6,735	6,659	9,518
Oklahoma, Kansas, N. Texas, etc.	17,720	16,628	15,922
Gulf Coast	7,533	7,704	5,193
Rocky Mountain	13,274	13,415	12,782
California	7,703	8,514	9,144
Foreign	3,947	3,500	3,536
Total	65,354	64,830	65,527
Pipe line and tank farm:			
Pennsylvania Grade	3,504	3,497	3,738
Other Appalachian (inc. Kentucky)	595	597	909
Lima-N. E. Indiana-Michigan	1,031	1,008	1,247
Illinois-S. W. Indiana	11,416	11,321	11,100
N. Louisiana and Arkansas	7,959	7,764	8,597
West Texas and S. E. New Mexico	26,338	26,498	26,369
East Texas	25,487	25,100	36,092
Oklahoma, Kansas, N. Texas, etc.	133,556	133,771	141,806
Gulf Coast	12,843	12,122	10,143
Rocky Mountain	15,061	14,872	15,192
California	27,452	27,271	24,949
Total	265,152	262,731	280,142
Lease (producers') stocks	8,633	8,758	8,398
Total refinable crude in the United States	339,139	337,319	354,067

PRODUCTION OF CRUDE PETROLEUM BY STATES AND PRINCIPAL FIELDS
(Thousands of barrels of 42 gallons)

	March, 1935 Total	March, 1935 Daily av.	February, 1935 Total	February, 1935 Daily av.	Jan.-Mar., 1935	Jan.-Mar., 1934
Arkansas	970	31.3	844	30.1	2,696	2,727
California:						
Huntington Beach	1,230	39.7	1,092	39.0	3,534	3,528
Kettleman Hills	2,021	65.2	1,898	67.8	6,023	4,692
Long Beach	2,035	65.6	1,843	65.8	5,808	5,342
Santa Fe Springs	1,202	38.8	1,057	37.8	3,459	3,729
Rest of State	8,943	288.5	8,069	288.2	26,077	24,165
Total California	15,431	497.8	13,959	498.6	44,901	41,467
Colorado	152	4.9	117	4.2	385	351
Illinois	370	11.9	295	10.6	997	1,124
Indiana	65	2.1	56	2.0	180	194
Kansas	4,821	155.5	4,177	149.2	13,244	10,688
Kentucky	438	14.1	405	14.5	1,288	1,070
Louisiana:						
Gulf Coast	2,921	94.2	2,540	90.7	8,188	3,918
Rest of State	684	22.1	640	22.9	2,032	2,416
Total Louisiana	3,605	116.3	3,180	113.6	10,220	6,334
Michigan	1,063	34.3	1,019	36.4	3,110	2,505
Montana	325	10.5	301	10.7	1,000	642
New Mexico	1,661	53.6	1,402	50.1	4,726	3,846
New York	336	10.8	319	11.4	1,012	865
Ohio:						
Central and Eastern	266	8.6	248	8.8	778	774
Northwestern	79	2.6	64	2.3	219	230
Total Ohio	345	11.2	312	11.1	997	1,004
Oklahoma:						
Oklahoma City	4,754	153.3	4,201	150.0	13,904	15,591
Seminole	4,035	130.2	3,449	123.2	11,192	9,479
Rest of State	6,859	221.3	6,080	217.1	19,498	19,094
Total Oklahoma	15,648	504.8	13,730	490.3	44,594	44,164
Pennsylvania	1,348	43.5	1,214	43.4	3,866	3,326
Texas:						
Gulf Coast	5,296	170.9	4,727	168.8	15,286	14,310
West Texas	4,735	152.7	4,260	152.2	13,556	11,685
East Texas	15,319	494.2	13,808	493.1	43,384	42,670
Panhandle	1,885	60.8	1,730	61 8	5,442	4,468
Rest of State	6,316	203.7	5,633	201.2	18,012	15,849
Total Texas	33,551	1,082.3	30,158	1,077.1	95,680	88,982
West Virginia	332	10.7	308	11.0	973	995
Wyoming:						
Salt Creek	536	17.3	499	17.8	1,574	1,599
Rest of State	487	15.7	464	16.6	1,515	1,188
Total Wyoming	1,023	33.0	963	34.4	3,089	2,787
Other*	4	.....	4	.....	8	2
Total United States	81,488	2,628.6	72,763	2,598.7	232,966	212,974

*Includes Missouri, Tennessee, and Utah.

INDICATED DOMESTIC DEMAND FOR CRUDE PETROLEUM
(Thousands of barrels of 42 gallons)

Domestic petroleum by fields of origin:	March, 1935 Total	March, 1935 Daily av.	February, 1935 Total	February, 1935 Daily av.	Jan.-Mar., 1935	Jan.-Mar., 1934
Appalachian:						
Pennsylvania Grade	2,093	67.5	2,003	71.5	6,333	5,592
Other (inc. Kentucky)	603	19.5	598	21.4	1,735	1,401
Lima-N. E. Ind.-Mich.	1,081	34.9	1,000	35 7	3,226	2,772
Ill.-S. W. Ind.	387	12.5	292	10.4	1,123	1,275
Mid-Continent:						
N. La. and Ark.	1,422	45.9	1,488	53.2	4,679	5,696
W. Texas-S. E. New Mex.	6,577	212.2	5,838	208.5	17,721	17,845
East Texas	14,856	479.2	13,683	488.7	42,303	43,171
Other (Okla., Kans., N. Tex., etc.)	27,878	899.3	25,739	919.3	82,413	72,019
Gulf Coast	7,732	249.4	7,154	255.5	21,876	18,826
Rocky Mountain	1,476	47.6	1,307	46.7	4,262	3,290
California*	14,825	478.2	13,492	481.9	42,980	39,019
Other†	4	.....	4	.....	8	2
Total demand	78,934	2,546.2	72,598	2,592.8	228,659	211,199
Exports	3,281	105.8	2,804	100.1	8,454	7,381
Domestic demand	75,653	2,440.4	69,794	2,492.7	220,205	203,818
Foreign petroleum	2,161	69.7	2,080	74.3	6,366	7,760
Total domestic demand	77,814	2,510.1	71,874	2,567.0	226,571	211,578

*Demand less net transfers from crude. †Includes Missouri, Tennessee and Utah.

MOVEMENT OF CRUDE OIL AND REFINED PRODUCTS TO EASTERN PORTS IN THE UNITED STATES
(Thousands of barrels of 42 gallons)

	March, 1935	February 1935	March, 1934	Jan.-Mar., 1935	Jan.-Mar., 1934
California to East Coast:					
Gasoline	466	633	758	1,587	1,422
Natural gasoline	.....	.....	.....	.....	.....
Kerosene	210	374	80	663	547
Gas oil and Diesel oil	116	135	245	564	1,025
Fuel oil	.....	.....	1,083	.....	3,907
Lubricants	2	9	1	15	11
Miscellaneous	3	73	16	79	20
Total	797	1,224	2,183	2,908	6,932
Gulf to East Coast:‡					
Crude	10,508	11,398	(*)	34,740	(*)
Gasoline†	6,152	5,233	(*)	16,949	(*)
Kerosene	1,467	1,525	(*)	4,817	(*)
Gas oil and fuel oil	5,869	6,495	(*)	18,147	(*)
Lubricants	130	141	(*)	437	(*)
Miscellaneous	8	14	(*)	25	(*)
Total	24,134	24,806	(*)	75,115	(*)
Foreign crude to East Coast:					
Colombia	.....	.....	510	.....	1,480
Ecuador	.....	.....	.....	.....	79
Mexico	134	.....	186	272	1,407
Venezuela	‡1,559	1,308	1,623	4,449	4,863
Total	1,693	1,308	2,319	4,721	7,829
Foreign crude to Gulf Coast:					
Colombia	443	422	.....	1,087	.....
Mexico	301	.....	91	301	306
Venezuela	171	173	.....	413	106
Total	915	595	91	1,801	412

*Not available. †Includes natural gasoline. ‡Includes Trinidad. §From Division of Investigations, Department of the Interior.

COMPARATIVE ANALYSES

(Thousands of barrels of 42 gallons)

	March, 1935		February, 1935		Jan.-Mar.,	Jan.-Mar.,
	Total	Daily av.	Total	Daily av.	1935	1934
CRUDE PETROLEUM:						
Runs to stills	76,630	2,472	70,817	2,529	222,903	209,789
MOTOR FUEL:						
Production	36,528	1,178	33,584	1,199	106,348	98,393
Imports:						
Bonded warehouses	.....	.....	20	1	20	.....
For domestic use	.....	.....	.....	.....	.....	1
Exports*	2,594	84	†1,248	45	5,967	6,505
Stocks, gasoline	60,405	.....	58,939	.....	60,405	62,265
Stocks, natural gasoline	5,252	.....	4,781	.....	5,252	3,926
Domestic demand	31,997	1,032	†26,432	944	86,491	84,992
KEROSENE:						
Production	5,215	168	4,791	171	15,017	13,044
Imports	.....	.....	.....	.....	.....	.....
Exports	541	17	463	17	1,726	1,998
Stocks	6,834	.....	6,119	.....	6,834	4,986
Domestic demand	3,959	128	4,597	164	12,855	12,614
GAS OIL AND FUEL OIL:						
Production	27,870	899	25,233	901	80,296	78,913
Transfers‡	1,261	41	1,092	39	3,191	2,506
Imports:						
Bonded warehouses	970	31	791	28	2,733	2,490
For domestic use	788	25	919	33	2,779	500
Exports	2,345	76	1,481	53	6,373	6,304
Stocks	99,380	.....	101,085	.....	99,380	106,286
Domestic demand	30,249	976	29,643	1,059	93,643	94,823
Railroad (Class I)§	(¶)	(¶)	3,555	127	‖7,483	10,683
Pub. util. pow. plants**	796	26	786	28	2,478	2,611
Other	29,453	950	25,302	904	83,682	81,529
Bunker oil—foreign	2,606	84	2,054	73	7,054	7,639
Bunker oil—coastwise	2,123	68	2,025	72	6,407	5,947
LUBRICANTS:						
Production	2,251	73	2,028	72	6,454	6,215
Imports	.....	.....	.....	.....	.....	.....
Exports	773	25	415	15	2,037	2,023
Stocks	7,277	.....	7,416	.....	7,277	6,837
Domestic demand	1,617	52	1,297	46	4,471	4,385
WAX (thous. of pounds):						
Production	37,240	1,201	35,280	1,260	109,480	128,800
Imports:						
Bonded warehouses	.....	.....	112	4	224	780
For domestic use	1,875	60	1,661	59	6,469	14,887
Exports	22,195	716	14,498	518	52,394	56,441
Stocks	141,809	.....	145,744	.....	141,809	86,644
Domestic demand	20,855	673	18,063	645	58,106	70,215
COKE (short tons):						
Production	118,800	3,832	110,000	3,929	344,800	373,400
Stocks	366,600	.....	353,400	.....	366,600	564,600
ASPHALT (short tons):						
Production	181,800	5,865	132,200	4,721	461,300	406,400
Imports (natural)	7,700	248	8,500	304	19,400	3,900
Stocks	408,700	.....	377,700	.....	408,700	370,500

*Includes benzol 28,790 bbls. in March, 1935. †Revised. ‡Net transfers in California. §I.C.C. ¶Not available. ‖January-February. **U. S. Geol. Survey.

STOCKS OF CRUDE PETROLEUM BY STATES AND BY LOCATION

(Thousands of barrels of 42 gallons)

	March 31, 1935				February, 1935			
	Refinery	Tank farm and pipe line	Lease	Total	Refinery	Tank farm and pipe line	Lease	Total
Arkansas	969	3,239	290	4,225	601	3,063	310	3,974
California	7,703	27,452	1,717	36,872	8,514	27,271	1,662	37,447
Colorado	319	89	30	438	293	94	25	412
Georgia*	691	.....	.....	691	649	.....	.....	649
Illinois	1,345	10,849	90	12,284	1,325	10,858	110	12,293
Indiana	1,567	1,972	8	3,547	1,397	1,849	8	3,254
Kansas	2,581	10,525	400	13,506	2,530	10,753	350	13,633
Kentucky†	508	376	40	924	500	401	40	941
Louisiana‡	4,716	6,217	380	11,313	4,380	6,038	440	10,858
Maryland	1,184	.....	.....	1,184	1,075	.....	.....	1,075
Massachusetts§	1,227	.....	.....	1,227	1,059	.....	.....	1,059
Michigan	136	645	80	861	131	597	90	818
Missouri¶	175	3,253	.....	3,428	173	3,212	.....	3,385
Montana	309	998	85	1,392	297	860	80	1,237
New Jersey	6,197	385	.....	6,582	5,122	416	.....	5,538
New Mexico	3	437	250	690	6	445	230	681
New York	1,190	133	18	1,341	1,323	115	18	1,456
Ohio	1,107	7,148	80	8,335	1,117	6,958	80	8,155
Oklahoma	3,570	74,657	1,630	79,857	3,725	74,809	1,780	80,314
Pennsylvania	4,855	1,709	105	6,669	4,848	1,706	105	6,659
Texas	12,524	99,246	2,900	114,670	12,824	98,540	2,900	114,274
Utah	236	.....	.....	236	245	.....	.....	245
West Virginia	85	1,895	145	2,125	87	1,868	145	2,100
Wyoming‖	12,430	13,927	385	26,742	12,599	13,878	385	26,862
Total United States	65,354	265,152	8,633	339,139	64,830	263,731	8,758	337,319

*Includes South Carolina and Virginia. †Includes Tennessee. ‡Includes Alabama. §Includes Rhode Island. ¶Includes Iowa. ‖Includes Nebraska and South Dakota.

RECORD OF WELLS FOR IMPORTANT FIELDS AND DISTRICTS, MARCH, 1935*

	Completions			Total initial prod. (bbls.)	Aver. initial prod. (bbls.)	Drilling end month
	Oil	Gas	Dry			
Texas	782	31	193	947,400	1,210	903
East Texas	447	1	11	804,600	1,800	226
Gulf Coast	42	3	25	28,400	675	118
Panhandle	49	9	4	32,900	670	93
West Texas	56	1	13	49,400	880	124
California	57	...	23	69,000	1,210	227
Kettleman Hills	2	...	...	10,600	5,300	23
Long Beach	11	...	.	2,500	230	32
Oklahoma	68	8	38	267,200	3,930	454
Pontotoc County (Fitts)	24	1	3	171,700	7,155	56
Seminole district	8	1	2	20,800	2,600	51
Louisiana	29	4	19	15,600	540	138
Gulf Coast	21	1	7	15,100	720	72
Rest of State	8	3	12	500	60	66
Other states	273	62	74	122,600	450	1,059
Total United States:						
March, 1935	1,209	105	347	1,421,800	1,175	2,781
February, 1935	1,103	139	327	820,400	745	2,877
Mar, 1935	930	78	279	982,200	1,000	2,768
January-March, 1935	3,316	364	1,060	3,058,600	920	2,781
January-March, 1934	2,650	282	397	2,583,500	975	2,768

*From The Oil and Gas Journal and California office of American Petroleum Institute.

PRODUCTION OF MOTOR FUEL

(Thousands of barrels of 42 gallons)

	March, 1935		February, 1935		Jan.-Mar.,	Jan.-Mar.,
	Total	Daily av.	Total	Daily av.	1935	1934
Refinery gasoline:						
Straightrun	17,291	558	15,610	558	50,122	49,072
Cracked	16,031	517	15,046	537	46,858	41,270
Natural gasoline:						
Production	3,223	104	2,952	105	9,461	8,838
Deduct losses	170	6	172	6	541	1,208
Benzol	153	5	148	5	448	421
Total motor fuel	36,528	1,178	33,584	1,199	106,348	98,393

RUNS TO STILLS AND OUTPUT OF REFINERIES, MARCH, 1935

(Thousands of barrels of 42 gallons)

	Crude runs			Unfin. rerun (net)	
INPUT—	Domestic	Foreign	Total	Crude gaso.	Other
East Coast	11,889	1,857	13,746	89	95
Appalachian	3,107	.....	3,107	—60	189
Ind., Ill., Ky., etc.	10,330	.....	10,330	184	—87
Okla., Kans., Mo.	8,621	.....	8,621	—89	—66
Texas Inland	4,979	.....	4,979	—8	—68
Texas Gulf	16,168	240	16,408	—175	282
Louisiana Gulf	3,279	63	3,342	33	—101
Ark. and La. Inland	1,325	.....	1,325	7	—13
Rocky Mountain	1,449	.....	1,449	8	47
California	13,323	.....	13,323	75	42
Total	74,470	2,160	76,630	64	320

OUTPUT—	Gasoline	Kerosene	Gas oil and distillate fuels	Residual fuel oils	Lubricants	Wax (thous. of lbs.)
East Coast	5,797	976	1,549	3,665	596	17,360
Appalachian	1,519	259	202	502	419	6,440
Ind., Ill., Ky., etc.	5,905	243	1,132	1,708	231	3,080
Okla., Kans., Mo.	4,816	594	605	1,754	280	3,360
Texas Inland	2,630	278	320	1,511	29	280
Texas Gulf	6,864	1,578	1,989	4,300	458	3,080
Louisiana Gulf	1,256	378	712	639	35	1,120
Ark. and La. Inland	637	78	88	381	14	.....
Rocky Mountain	870	60	84	318	34	2,520
California	5,020	671	1,997	5,675	155	.....
Total	35,314	5,215	8,678	20,453	2,251	37,240

OUTPUT (Cont'd.)—	Coke (tons)	Asphalt (tons)	Road oils	Still gas	Miscellaneous	Shortage
East Coast	14,200	65,100	5	765	98	84
Appalachian	2,200	7,400	.....	191	17	83
Ind., Ill., Ky., etc.	50,600	49,800	37	811	12	—38
Okla., Kans., Mo.	14,800	1,300	17	440	29	251
Texas Inland	2,600	.....	19	106	6	253
Texas Gulf	16,800	8,700	5	1,105	25	152
Louisiana Gulf	9,400	8,200	—9	143	1	40
Ark. and La. Inland	200	10,200	20	38	5	26
Rocky Mountain	8,000	1,800	34	94	5	17
California	.....	29,300	69	314	†23	78
Total	118,800	181,800	197	4,007	221	946

*Includes 46,000 bbls. run through pipe lines. †Includes 3,000 bbls. liquefied petroleum gas made from natural gasoline.

CRACKED OPERATIONS

	Bbls.
Fresh cracking stock charged to stills: Crude	5,053,000
Other oils	35,805,000
Gasoline produced by cracking	16,031,000
Fuel oil produced by cracking	15,195,000

GASOLINE PRODUCTION BY THE VARIOUS METHODS, MARCH, 1935

(Thousands of barrels of 42 gallons)

	Straightrun		Cracked		Nat. gaso.		Gasoline	
	Total	Per cent (*)	Total	Per cent (*)	Total	Per cent (†)	Total	Per cent (*)
East Coast	2,759	20.1	2,942	21.4	96	1.6	5,797	41.5
Appalachian	760	24.5	728	23.4	31	2.0	1,519	47.9
Ind., Ill., etc.	2,355	22.8	3,298	31.9	252	4.2	5,905	54.7
Okla., Kans., Mo.	2,310	26.8	2,093	24.3	413	8.6	4,816	51.1
Texas Inland	1,598	32.1	769	15.4	263	10.0	2,630	47.5
Texas Gulf	3,083	18.8	3,677	22.4	104	1.5	6,864	41.2
Louisiana Gulf	776	23.2	463	13.9	17	1.3	1,256	37.1
Ark. and La. Inland	347	26.2	265	20.0	41	6	25	3.9	637	46.2
Rocky Mountain	429	29.6	370	25.5	71	8.2	870	55.1
California	2,874	21.6	1,426	10.7	28.4	720	14.3	5,020	32.3
Total	17,291	22.6	49.0	16,031	20.9	45.4	1,992	5.6	35,314	43.5

*Per cent of crude run. †Per cent of total gasoline output.

SHIPMENTS OF MOTOR FUEL BY PIPE LINES

(Thousands of barrels of 42 gallons)

	March, 1935	February 1935	March, 1934	Jan.-Mar., 1935	Jan.-Mar., 1934
Motor fuel turned into lines	4,023	3,286	3,448	11,301	9,706
Motor fuel delivered from lines	3,913	3,298	3,333	10,865	9,641
Shortage	8	12	9	72	24
Stocks in lines and working tanks at end of month	2,407	2,305	1,356	2,407	1,356

STOCKS HELD BY REFINING COMPANIES, MARCH 31, 1935

(Thousands of barrels of 42 gallons)

	Finished gasoline					Gas oil and distillate fuel oils
	At refineries	Bulk and pipe lines	Unfinished gasoline	Total gasoline	Kerosene	
East Coast	7,368	11,118	917	19,403	1,689	3,176
Appalachian	1,377	817	403	2,597	237	232
Ind., Ill., Ky., etc.	7,017	3,146	752	10,915	628	2,258
Okla., Kans., Mo.	4,124	2,179	692	6,995	494	816
Texas Inland	1,784	93	228	2,105	143	159
Texas Gulf	6,714	580	1,647	8,941	1,676	2,668
Louisiana Gulf	1,036	661	199	1,896	484	1,487
Ark. and La. Inland	200	70	36	306	21	93
Rocky Mountain	1,126	.....	106	1,232	155	170
California	9,474	1,521	905	11,900	1,307	4,993
Total	40,220	20,185	5,885	66,290	6,834	16,052

	Residual fuel oil	Lubricants	Wax (thous. of pounds) Crude scale	Refined	Total
East Coast	6,121	2,435	23,565	32,615	56,180
Appalachian	355	978	17,082	2,677	19,759
Ind., Ill., Ky., etc.	2,632	575	16,369	1,584	17,953
Okla., Kans., Mo.	2,244	541	5,866	1,007	6,873
Texas Inland	1,972	112	.....	65	65
Texas Gulf	6,338	1,552	787	23,163	23,950
Louisiana Gulf	2,844	85	739	1,427	2,166
Ark. and La. Inland	643	20	.....	.....	.....
Rocky Mountain	465	98	13,219	1,644	14,863
California	59,714	881	.....	.....	.....
Total	83,328	7,277	77,627	64,182	141,809

	Coke (tons)	Asphalt (tons)	Road oil	Miscellaneous	Other unfinished	Natural gasoline
East Coast	11,100	118,400	21	52	8,009	215
Appalachian	7,700	14,500	13	42	1,932	12
Ind., Ill., Ky., etc.	31,700	116,800	101	18	5,542	52
Okla., Kans., Mo.	33,700	8,900	154	29	5,518	82
Texas Inland	18,600	.....	72	7	1,101	13
Texas Gulf	86,500	9,100	15	27	10,711	254
Louisiana	14,700	28,400	3	1	1,322	1
Ark. and La. Inland	100	49,400	26	1	307	7
Rocky Mountain	74,900	6,800	225	9	1,768	20
California	87,600	56,400	183	47	4,814	2,818
Total	366,600	408,700	812	233	41,024	3,474

Grand total stocks refined products, 226,438,000 bbls.

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